COMPLEXITY, UNCERTAINTY, AND THE STATUS QUO

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ABSTRACT

Andrew H. Tyner: Complexity, Uncertainty, and the Status Quo
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In three empirical chapters, my dissertation presents the complexity of issue debates as a product of elite efforts to mobilize and demobilize support for issue reform. The success of these efforts depends on citizens' ability to process large volumes of diverse information. My first chapter uses unsupervised topic modeling of congressional floor speeches to test predictions from my theory of political elites' communication strategies. As expected, I find that supporters of reform keep issue debates simple by focusing on a small number of arguments, while opponents focus broadly on a wide range of arguments to make debates complex. They follow this strategy because complexity creates uncertainty. Uncertainty weakens attitudes, which depresses participation and support for reform. My second chapter focuses on direct democracy, and looks at one particular way that ballot measures can become more or less complex: namely, the clarity of their policy goals. I predict that clear policy goals should make citizens more likely to vote on a ballot measure, more likely to support reform when the policy goals are shared across the ideological spectrum, and more likely to vote in alignment with their political predispositions when the policy goals are associated with the political right or left. I first merge an ANES dataset that includes 81 ballot measures with hand-coded measures of their characteristics. Second, I administer an original survey experiment that varies the clarity of ballot measures' goals. My expectations are supported in both studies. In the third chapter, I return to the causal model outlined in the first chapter to test the effects of complex debates on the mass public. Using two original survey experiments, I find that citizens who can process high volumes of political information gain stronger attitudes from complex debates, while citizens who cannot process information develop weaker issue attitudes. Taken together, my dissertation demonstrates

that elites can influence who takes action on political issues through their messaging, and that they use this capacity to advance their goals.

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Political elites compete through their rhetoric to shape the public's view of proposed policy reforms, particularly on highly salient issues (Baumgartner, Berry, Hojnacki, Leech & Kimball 2009). Supporters and opponents of reform each make their case to the public, with supporters hoping to either win approval for reform or at least not invite public resistance. Opponents hope to disquiet the public enough that supporters get scared off from further progress and reform efforts stall out. Both sets of elites strategically select arguments to achieve these outcomes (Riker 1986, Holian 2004, Jerit 2008, Hänggli & Kriesi 2012).

One advantage that opponents of reform have over supporters is the public's preference for the status quo. Existing theory has identified a status quo bias in human decision-making – a bias that exists alongside and rests on people's aversion to risk and uncertainty (Eidelman & Crandall 2009). All else equal, status quo arrangements seem less risky and more certain in people's minds than reform, which means that reform proposals need to clear an extra hurdle relative to the status quo to achieve widespread support: they need to advance a worthy goal while also posing a minimal risk in people's minds.

I propose that supporters and opponents each account for status quo bias in their rhetorical strategies, with supporters seeking to undermine it and opponents seeking to activate it. They achieve these outcomes through two approaches. First, I claim that opponents and supporters can put relatively more or less emphasis on losses in their arguments, since loss heightens the sense of risk associated with reform. Second, they can manipulate the complexity of the debate, where complexity is defined by how many distinct arguments are raised in discussions of the issue. Complex discussions activate status quo bias by making issue reform seem risky and uncertain. Simple discussions, by contrast, undermine status

quo bias by focusing people's attention on only a few aspects of reform. Further, these aspects are often highly agreeable. Thus, even beyond the individual frames that elites select to bolster their side, elites' goals should shape the overall structure of the debate.

In this paper, I test the hypothesis that supporters and opponents of reform pursue different rhetorical strategies in issue reform debates. Supporters keep debates simple by focusing narrowly on a small set of arguments, while opponents make debates complex by spreading their attention widely across more arguments. Further, supporters focus more attention on gains relative to losses, and opponents take the opposite approach.

I find support for these expectations by topic modeling speeches on health care reform delivered by members of the House of Representatives between February 2009 and the end of March 2010. This procedure allows me to identify each of the main arguments about reform that were raised over the course of the debate. I find that Democrats – who were supporters of reform in this debate – spread their attention across comparatively fewer arguments than Republicans, who were opponents of reform. Furthermore, Democrats emphasized potential gains while Republicans stressed potential losses, as predicted. Thus, in this paper I show that elites' goals influence both the content *and* the structure of issue debates.

Status Quo Bias and Resistance to Reform

I categorize political elites into two groups. Supporters of reform seek to change the policy status quo. Opponents of reform seek to maintain policy as it is. Each pursues a distinct rhetorical strategy in issue reform debates.

Opponents of reform aim to build on status quo bias (Kahneman, Knetsch & Thaler 1991, Eidelman & Crandall 2012). Status quo bias refers to features of human psychology that push people to favor the status quo. These include people's preference for precedent, the tendency for people to like objects more the longer they are exposed to them, and the perception of people seeking reform as overly extreme and unreasonable (Eidelman, Crandall & Pattershall 2009, Eidelman, Pattershall & Crandall 2010, Eidelman & Crandall 2009). Bias

in favor of the status quo has been used to explain the challenges of achieving reform on both policy and procedural matters (Zink & Dawes 2015, MacKuen, Marcus, Neuman & Keele 2007).

Extensive research also demonstrates that most people hold an aversion to risks and potential losses (Tversky & Kahneman 1974). Risk aversion affects many aspects of people's lives, including their political behavior. Individuals who are risk-averse are less supportive of challengers than incumbents in elections and demonstrate lower support for policy reforms that are perceived to be risky (Eckles, Kam, Maestas & Schaffner 2014, Kam & Simas 2012, Ehrlich & Maestas 2010, Eckles & Schaffner 2011).

Risk and loss aversion complement the status quo bias discussed above and help support it. Potential losses that follow reform loom larger than potential gains, reinforcing the dangers that attend altering the status quo (Arceneaux 2012). Thus, reform efforts that seem risky will face an uphill battle in gaining public support. As such, status quo bias and the risk aversion that underlies it represent some of the strongest tools opponents of reform have to undermine policy reform efforts.

Uncertainty, Risk Aversion, and Status Quo Bias

Fostering uncertainty about the consequences of reform is an effective way to activate both risk aversion and status quo bias. When the consequences of reform are in doubt, potential losses are more likely to outweigh potential gains. The known is preferable to the unknown, such that certain problems with the status quo can seem less troubling than uncertain risks of change (Fernandez & Rodrik 1991). Feeling uncertain is an aversive experience for most people, leading them to find ways to resolve uncertainty as efficiently as possible (Van den Bos et al. 2009). Managing one's sense of uncertainty is a basic human motive, and people will take steps to restore confidence in their own judgments and assuage doubts when such feelings arise (Van den Bos & Lind 2002).

All of this serves as an advantage to the status quo. The status quo is a known quan-

tity, so even if aspects of it are unfavorable, its continuation does not foster the same level of uncertainty as reform proposals. Accordingly, risk-averse citizens are more comfortable with known outcomes than probabilistic outcomes in political decisions (Kam & Simas 2010, Ortoleva 2010). Therefore, uncertainty over outcomes should lead citizens to oppose political reform, even when the status quo is recognized to be a problem.

Status quo bias as discussed here should be distinguished from a more general conservative bias. Jost and Amodio (2012) review a host of psychological and physiological differences between liberals and conservatives and note that conservatives display less tolerance for ambiguity and uncertainty than liberals, as well as less motivation to attain a cognitively complex understanding of reality. Acknowledging that ideology itself is a bulwark against feelings of uncertainty (Jost & Amodio 2012, 55-6), they argue that conservatism is distinguished by its particular appeal to people who are anxious in the face of uncertainty.

All the same, I propose that uncertainty should activate status quo bias for *all* citizens, not just conservatives. It may be that conservatives experience *greater* uncertainty than liberals in response to the same stimuli, or that conservatives require less uncertainty to activate status quo bias. Even so, that uncertainty will lead to status quo bias should be common to both liberals and conservatives alike. As such, raising uncertainty should serve to derail reform efforts by making the status quo seem more palatable relative to the proposed reform than it otherwise would be.

Fostering Uncertainty Through Complexity

Previous work in mass decision-making has focused on the role of specific personality characteristics – like risk acceptance – and particular frames in activating status quo bias (Arceneaux 2012, Ehrlich & Maestas 2010, Kam & Simas 2010). By contrast, I offer a broader account of elites' capacity to raise uncertainty through their rhetoric. I claim that elites can foster uncertainty, thereby activating risk aversion and status quo bias, by increasing the complexity of a political debate. Complex political rhetoric that raises the salience

of many different aspects of a proposal leads to cross-cutting evaluations of the proposal and an overload of information. Both outcomes should raise people's uncertainty about reform.

Supporters of reform want to focus on the problems at hand, the solutions that will directly address the problem, and the goals that will be achieved by implementing that solution (Entman 2007). Opponents of reform want to make issues seem more complex by following two strategies. First, they spread their attention across a wide range of arguments by introducing a diverse array of considerations and dimensions of debate. Previous research has argued that elites will add a dimension to the debate when they are losing support in an attempt to flip the outcome (Riker 1990). Spreading attention across a wide range of arguments introduces many more criteria into a decision context, which can cause disengagement from the decision process and a reversion to the status quo (Barker & Hansen 2005). Further, all attempts to fit a high-dimensional political reality to a low-dimensional decision context inevitably leave important considerations out of the equation (Jones, Talbert & Potoski 2003). Reducing dimensions is necessary to limit uncertainty and allow decisions to be made. By extension, political elites who want to raise uncertainty should attempt to increase the dimensionality of the issue debate.

As a second way of increasing complexity, elites can focus on the costs, unintended consequences, and the process of political reform itself. Discussing these aspects of reform activates risk and loss aversion directly by raising considerations about costs and losses. It also complicates the simplified policy narrative of the reform supporters, in which there is a clearly identified problem, a solution readily at hand, and lofty goals that will be achieved by implementing that solution (Entman 2007). Opponents of reform want to infuse the issue debate with complicating considerations to disrupt this simple narrative.[1] Taking attention away from exclusively problems and goals thus makes the debate more complex.

In addition to supporting or opposing reform, the time period within the debate should

[1]This prediction expands on Jerit's (2008) analysis of President Clinton's failed health care reform efforts. She also predicts that supporters and opponents of reform should focus on costs and benefits of reform at different rates, though the substantive focus of our theories remains distinct.

shape how complex elites make their issue presentations. Opponents of reform should use more complexity earlier in a debate than later. As the debate wears on and arguments are used repeatedly across communication platforms, opponents gain a better sense of which arguments are gaining traction in the media and within the mass public. Opponents should focus their attention more centrally on the arguments they perceive as most effective in the later stages of the debate, and the list of talking points should narrow down accordingly.

By contrast, supporters should focus narrowly early in the debate on problems with the status quo and goals of political reform, resulting in the simple issue presentation discussed above. Over time, supporters are compelled to respond to the arguments presented by opponents that seem effective. The result is that supporters' attention has to be spread more broadly as the debate enters the late stages, as they focus *both* on the problems and goals that represent the core of their rhetorical strategy and attempt to counter the most effective arguments presented by the opponents of reform.

To summarize, political debates are shaped by people's status quo bias and risk aversion. Complex rhetoric activates both features of human decision-making. Thus, political elites in favor of reform should adopt simple rhetorical strategies focused on gains from reform or losses from inaction. Opponents of reform should adopt complex rhetorical strategies that employ many distinct arguments and that focus on potential losses from reform, since they hope to raise uncertainty and, by extension, risk aversion and status quo bias.

Hypotheses

This theory leads to a set of hypotheses about the different rhetorical strategies pursued by supporters and opponents of reform:

- H1: Opponents of reform should rely on a wider range of arguments in an issue debate than supporters of reform.

- H2: The range of arguments used by opponents of reform during an issue debate should decrease over time.

- H3: The range of arguments used by supporters of reform during an issue debate should increase over time.

- H4: Supporters of reform should focus more on problems and goals than opponents of reform.

- H5: Opponents of reform should focus more on costs, unintended consequences, and the process of political reform itself than supporters of reform.

Design

I test these hypotheses on the rhetoric of members of the U.S. House of Representatives during the 2009-2010 health care reform debate, which resulted in passage of the Affordable Care Act in March 2010. This issue debate is well suited to test my hypotheses for three reasons. First, it was a highly salient debate that dominated coverage for long stretches of time. Even politically disengaged citizens could be expected to know something about the issue from the high volume of coverage. While some issue debates might be confined to a smaller political class, members of Congress were almost certainly tailoring their talking points to reach the broader mass public. Second, the debate spanned well over a year, which allows me to test my time-dependent second and third hypotheses. Third, expanding health care coverage has long been a Democratic policy priority. Its fixture in partisan conflict over the decades supports my assumption that both sides of the debate had coordinated their talking points prior to and during the debate.

Relying on the rhetoric of U.S. House members has a number of advantages. First, as highly visible elites with a range of communication platforms at their disposal, House members help set the political agenda for both the media and the mass public (McCombs 2013). The topics they focus on become the public's focus. The talking points that members promote become the pool of arguments that the media and public draw on in their own discussions of an issue.

Second, members of the House communicate frequently and consistently about topics of major importance through a variety of communication platforms. This sustained attention

allows us to see how the rhetoric of political elites changes across time as the debate proceeds through different stages. Finally, each House member in the data is affiliated with either the Democratic or the Republican Party. In the context of a major legislative debate, that affiliation allows us to assign each speaker the status of supporter or opponent of reform.

I rely on House floor speeches in the following analyses. Floor speeches have two advantages over other forms of public rhetoric for hypothesis-testing. First, they are written by House members themselves (or at least by members of their staff), so they represent their motivations and intentions in a distilled form. This contrasts with other communication formats like television or radio appearances, where their comments are at least partially shaped by the questions they receive. Second, floor speeches are long enough documents that the full range of arguments that a member of Congress wants to use can be included. Because I want to measure all of the arguments that a member thinks are necessary, it is important that members are not artificially constrained by the time they are allotted to speak or the questions they are asked to respond to, both of which apply during media appearances.[2]

Congressional Text Data

I use text data from the one-minute speeches delivered on the floor of the House of Representatives (or printed directly to the *Congressional Record*) from February 2009 through March 21, 2010. The speeches were identified through a supervised topic model implemented by the original collector of the speech data (Hughes 2016). 11,333 of the full set of 43,880 one-minute speeches delivered between 1989 and 2012 were hand-coded according to Baumgartner and Jones' Policy Agendas Project (PAP) major-topic coding scheme and were used to train the model on which the remaining speeches were classified.

I draw exclusively on the speeches that were classified as belonging to the Health topic between February 2009 and March 2010. Further, I have attempted to remove speeches with

[2]Though one-minute speeches do face a time constraint, members of the House often make additions to the text before they are published in the *Congressional Record* if there were points they did not have time to make in the original speech. Thus, I make the assumption that the speech data I analyze fully reflect the range of arguments each House member wants to use.

titles that do not correspond to health care reform. A full set of descriptive statistics about the resulting 1,120 one-minute speeches is contained in Table 1.1. The table demonstrates that there is a fairly even distribution of speeches across the two parties and that, on average, speeches are about the length of a long paragraph.

Table 1.1: Summary statistics of one-minute floor speeches.

	One-Minute Speeches
Number of Documents	1,120
Minimum – Word Count	42
Maximum – Word Count	635
Mean – Word Count	184.30
Standard Deviation – Word Count	37.03
Median – Word Count	183
Percent Democrat	44.91%

The speeches represented in this table are all of the one-minute floor speeches delivered in the U.S. House about health care reform between February 3, 2009 and March 21, 2010.

Mining Congressional Speech

My definition of complexity requires a method to extract the number of arguments used by supporters and opponents of reform during an issue debate. I use structural topic models (STM) to identify the number, character, and representative vocabulary associated with each side's topics. Structural topic models are a form of unsupervised topic modeling that clusters all of the unique topics collectively comprising a corpus of documents, where a topic is an unobserved theme denoted by a unique vocabulary (Blei 2012). In contrast to supervised models, unsupervised models do not rely on any pre-determined assumptions about the topics contained within a corpus. Instead, the categories that comprise a corpus and the distribution of each constituent document across the topics are all inferred directly from the data (Roberts, Stewart, Tingley, Lucas, Leder-Luis, Gadarian, Albertson & Rand 2014). The only input required is the number of topics that the model should fit the data to (Nowlin 2015). Further, structural models are mixed-membership, meaning that each document is assumed to belong to multiple topics, and the modeling task is to estimate the

proportion of each document that belongs to each topic in the corpus (Roberts, Stewart & Airoldi 2016).

The output from fitting the STM is a collection of topics that produced the corpus and a list of words that have a high probability of being associated with each topic. Each document in the corpus receives a topic distribution that indicates the proportion of the document that was produced by each discovered topic (Roberts, Stewart & Airoldi 2016). These per-document proportions can be used to determine how concentrated or spread out each document author's attention is across topics, which I use as a measure of each document's complexity. This is discussed in greater detail below.

Testing the fourth and fifth hypotheses requires looking at the *content* of each topic instead of simply the *distribution* of the document across topic memberships. Since no topic labels are provided to the model at the outset in unsupervised learning, deciphering the unifying theme of each generated topic happens after model estimation. This process relies on researcher interpretation of each topic's vocabulary. To aid the interpretation of topics, each word in a topic's vocabulary is assigned a FREX (FRequency-EXclusivity) score that incorporates a word's frequency within a topic as well as its exclusivity to that topic. Since the FREX index incorporates both elements, higher scores indicate that a word is particularly characteristic of that specific topic (Airoldi & Bischof 2015). The set of each topic's words with the highest FREX scores indicate what the topic is about.

Finally, one of the more consequential decisions that the researcher needs to make when fitting an unsupervised topic model is the number of topics that should be estimated (Blei 2012). This is especially true for the present analysis, where the number of topics that the speakers can draw from directly impacts how concentrated or diffuse their topic attention is. As is the case with labeling estimated topics, there are no specific rules to follow when selecting the number of topics, though in general the number of topics should increase as the size of the corpus increases (Roberts et al. 2014).

The analyses below rely on a 40-topic model featuring the full unigram text representation

of one-minute floor speeches delivered between February 3, 2009 – the earliest date that a speech about health care reform was given in the 111th Congress – and March 21, 2010. I surveyed a range of text representations and number of topics before determining the 40-topic unigram representation to be best. My discussion of those procedures is contained in Appendix 1A. Table 1.2 organizes the 40 estimated topics by underlying idea.

Table 1.2: Estimated Topics by Substantive Similarity

Category	Topic Numbers
Status Quo Problems	2, 8, 9, 18, 19, 20, 22, 23, 33, 36
Goals	5, 7, 11, 14, 24, 26, 27, 40
Process	4, 16, 29
Cuts & Costs	3, 32, 35
Partisanship & Media Coverage	6, 12, 17, 21, 37
Big Government	1, 13, 25, 30
Constituents	31, 39
Small Business	34
Public Option	10
Unsure/Unlabeled	15
Unsure/Unlabeled	38
Goals (non-ACA)	28

Each number corresponds to a topic estimated from the 40-topic structural topic model referenced throughout the Results section. The groupings in this table represent clusters of similar topics.

I have minimized my manipulation of the floor speeches as much as possible. Three exceptions should be noted. First, I include only terms that appear at least five times in the corpus. Excluding terms that rarely appear ensures that idiosyncratic language and misspellings are not categorized into a topic. Second, I exclude a set of terms that show up frequently but that have no substantive relevance to political issues generally or health care specifically. These include the names of all the representatives serving in the 111th Congress who authored one of the speeches in the data, the name and abbreviation of every state, and a short list of additional terms.[3] Finally, Joe Wilson (R-SC) delivered many speeches in the dataset and ended each one, regardless of topic, with the same phrase: "God bless the troops and we will never forget 9/11." The frequent repetition of this phrase causes it to show up as a distinct topic in most models, so I have deleted the phrase in the dataset whenever it appears.

[3]The additional excluded terms are as follows: re, don, t, doesnt, going, ve, thats, dont, cant, theyre, r, s, m, mrs, d.

Dependent Variables

Complexity: Complexity is the main dependent variable of the study, and it is measured by the distribution of attention across the topics of a speech. I calculate complexity as a Shannon's diversity index score. Scores on the index are higher when the elements in a given unit (i.e. a floor speech) are evenly spread among many categories and lower when elements are concentrated narrowly into a small number of categories. In the context of the health care debate, each category is one of the estimated topics and an element is the proportion of a document about that topic. The formula for the diversity index is as follows, where p refers to the proportion of a document i devoted to topic j:

$$H = -\sum_{i=1}^{j}(p_{ij} * ln(p_{ij}))$$

In a 10-topic model, for example, the index accounts for all ten topics' proportions. In a 20-topic model, all 20 topics' proportions are used. The variable is scaled 0-1. Higher values indicate greater complexity.

Topic Proportion: The proportion of a speech devoted to each of the topics is used to calculate the measure of complexity described immediately above. It is also a dependent variable in its own right, since H4 and H5 predict that supporters and opponents of reform will focus on different topics.

Independent Variables

Party: In the 2009-2010 health care debate, I consider all Democrats to be supporters of reform and all Republicans to be opponents of reform. Accordingly, I use a dummy variable indicating the speaker's political party to measure which side of the debate the speaker represents. The variable is coded 1 when the speaker is a Democrat and 0 when she is a Republican.

Days: I include a count of the days since February 3, 2009 to measure time. February 3 is the first day that a floor speech about health care was delivered, and thus it is coded as 0.

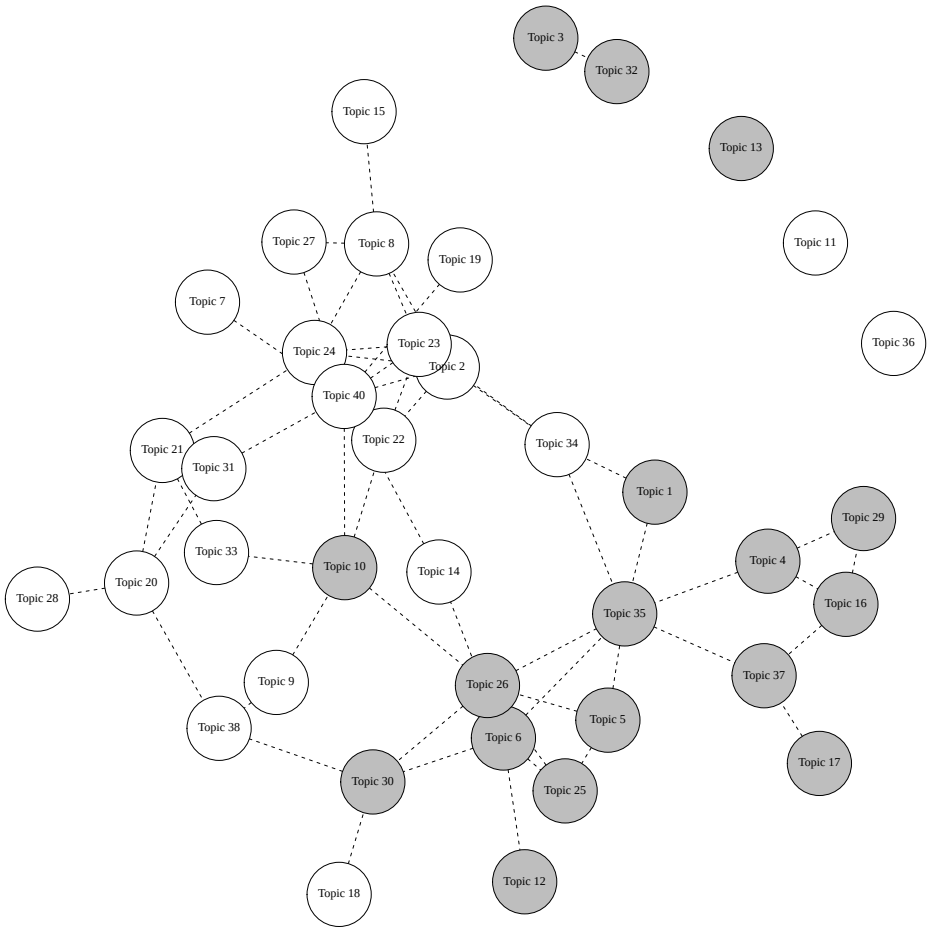
Validating and Clustering Topics

To validate that the topics produced by the unsupervised approach are meaningful, I plot the correlations among estimated topics below. White nodes represent topics where Democrats have a higher mean proportion, meaning they spend more time on average on that topic than Republicans. Grey nodes represent topics where Republicans have the higher mean. A dotted line connecting two topics means their correlation is above zero at any level of statistical significance.

Figure 1 plots these correlations. The figure provides evidence that the topics are clustering as expected, thus providing evidence that the STM is detecting meaningful topics. My theory suggests that supporters and opponents of reform should focus on different topics (i.e. Democrats should focus more on the goals of reforming health care). If the party of the speaker can predict topic use in this way, then topics that receive relatively more attention from Democrats should correlate with one another, and topics that receive relatively more attention from Republicans should do the same. Figure 1.1 reveals this to be the case. Further, the correlations among topics make substantive sense, since talking points on the same topic are correlated. For example, topics 3 and 32 in the upper right corner of the figure are both about potential cuts to existing programs that might result from the reform proposal. The topics are correlated, as expected, and both are more frequently discussed by Republicans than Democrats.

Beyond validating that the topics are correlated, a closer examination of the 40 topics reveals that many of them are quite similar. For example, the model produces multiple topics where the speakers lament the status quo of health care in the United States, with only small variations in language within each of those topics. Splitting the same ideas among more than one topic might underestimate the degree of simplicity in Democratic floor speeches, particularly if Democratic talking points are more likely to be split among multiple topics than Republican talking points. Further, since H4 and H5 predict different rates of argument use from supporters and opponents of reform, splitting the same basic argument across multiple

Figure 1.1: Correlations Among Estimated Topics



The topics displayed in this figure are derived from the 40-topic structural topic model discussed in the main text. White nodes indicate that Democrats spend more time discussing the topic. Grey nodes indicate that Republicans spend more time discussing the topic.

estimated topics prevents a clean hypothesis test.

To address this limitation, the 40 topics produced by the 40-topic model were narrowed down to 12 topics by combining together similar ideas. The resulting clustered topics are listed in Table 1.2 above. Categorizing topics like this departs from the data-driven approach of unsupervised learning, but it is necessary if the number and diversity of argument types is going to be properly measured. Clustering topics by the underlying argument they are making brings more substantive expertise to the analysis than a strictly unsupervised modeling approach would allow.

I have made a series of decisions that make the ensuing analyses more conservative against finding support for my hypotheses. First, I have intentionally been generous in categorizing Republican talking points together to concentrate their attention: the "costs" topic was combined with two topics on potential cuts that could result from reform. Further, Republican talking points about biased media coverage were grouped under a more general partisanship topic.

Given my theoretical focus on status quo bias, I group all topics focused on problems with the status quo into one category. Differences do emerge among these topics: some focus on sad stories of struggling constituents, others on the problem of pre-existing health conditions, and others still on rising premiums. Still, all are united by the theme that the current system is broken, and I classify them together accordingly. The analyses below all rely on the 12 clustered topics since the 12 offer more substantive and coherent arguments in this particular policy debate. For robustness, I have tested H1-3 without clustering in a variety of configurations and generally found support for them.[4]

[4]Specifically, in Appendix 1B I demonstrate that H1 receives support *without* clustering for topic models with greater than 20 topics, but not for models with 20 or fewer topics. Further, across most of the topic models without clustering with 10, 15, 20, 40, 60, and 80 topics, the predicted levels of complexity across party and time support the expectations in H2 and H3: Democrats become more complex over time, while Republicans become less complex. Without clustering the topics, these effects are not statistically significant, but the trend lines provide supporting evidence for the robustness of my findings. Without clustering topics, it is not possible to test H4 or H5. Thus, I do not test the robustness of H4 and H5 with unclustered topics in the main text or appendices.

Results

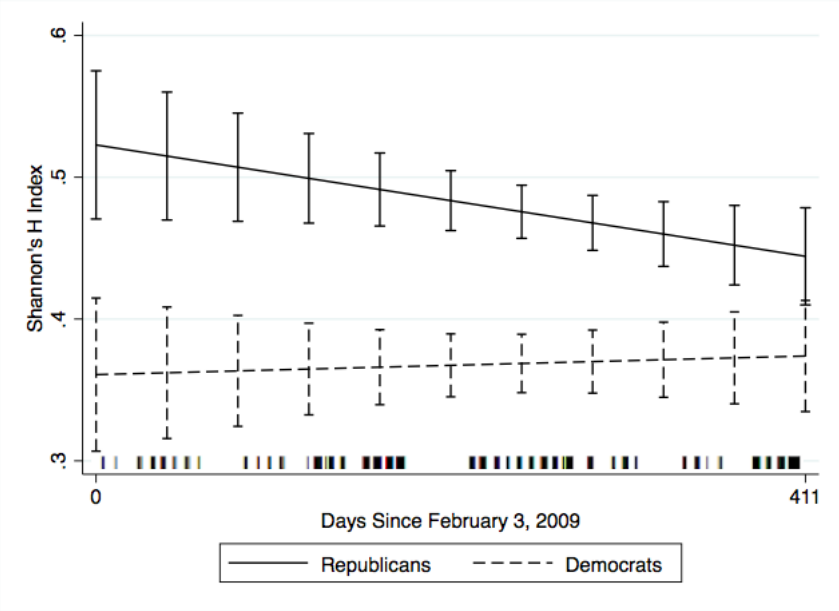
In the analyses below, I compare the complexity of Democratic and Republican speeches in two ways. Each test is OLS regression with three covariates: party of the speaker, the number of days since February 3, 2009 (the first date in the dataset), and an interaction between the two. The predicted value of the dependent variable is then plotted by party across the 411 days in the dataset with 95% confidence intervals. Dashed lines and confidence intervals represent Democratic estimates; solid lines and confidence intervals represent Republican estimates.

Figure 1.2 plots the predicted Shannon's diversity index scores by party across the time period of the debate. As discussed above, index scores are highest when each constituent topic covers an equal proportion of the overall speech. As such, higher index scores for a speech indicate greater dispersion of attention across topics, meaning greater complexity. The figure provides supportive evidence for H1: Republican speeches, on average, are more complex than Democratic speeches. This is particularly the case early in the debate, where a switch from a Democratic representative to a Republican representative moves the speech over 16 percentage points up the complexity scale. The gap between the two parties' speeches narrows over the course of the debate, as suggested by the sign and near significance at the 0.10 level of party and time's interaction (p=0.11; see Table 1.3 for more detail). By March 2010, a switch from a Democratic to a Republican speech represents just a 7 percent increase in the complexity scale. Notably, Figure 1.2 reveals that the complexity gap narrows because Republican speeches get simpler – not because Democratic speeches become more complex. This pattern of evidence thus supports H1 and H2, but not H3.

On their own, the Shannon's diversity index scores are hard to interpret substantively. To get a better sense of the difference between Democratic and Republican speeches, I plot in Figure 1.3 the distribution of speeches by the proportion of each speech devoted to its

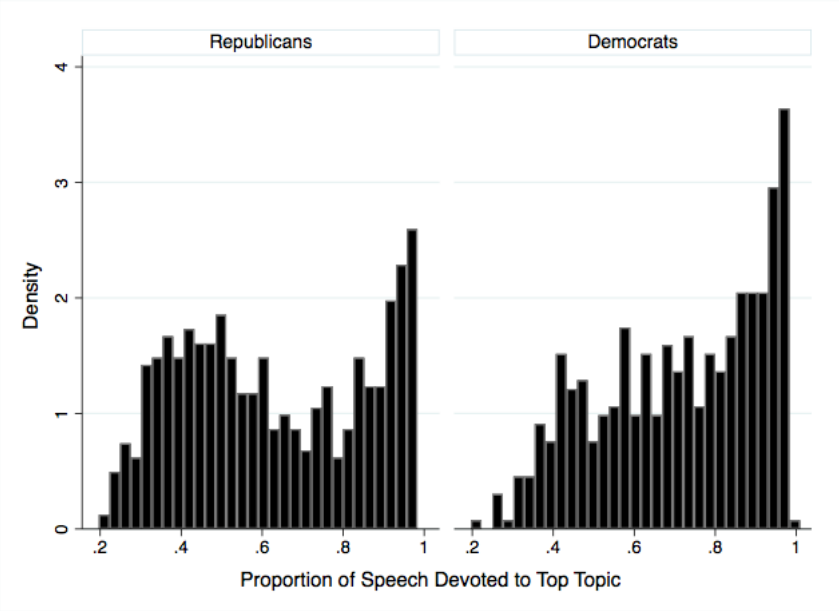
own most prevalent topic. Prevalent topics that account for a large portion of the speech crowd out other topics, which simplifies the speech. Accordingly, this proportion measure correlates strongly and negatively with the Shannon's diversity index scores (-0.97).

Figure 1.2: Complexity by Party and Time



This figure is derived from a linear regression model where the dependent variable is complexity of a speech as measured with a Shannon's diversity index score. The index score has been re-scaled 0-1 with 1 representing the highest level of complexity. The estimates in this figure are drawn from Model 1 in Appendix 1B's Table 1.3. The distribution of speeches across days is displayed by the hash marks on the bottom of the figure.

Figure 1.3: Proportion of Speech Covered by Most Prevalent Topic



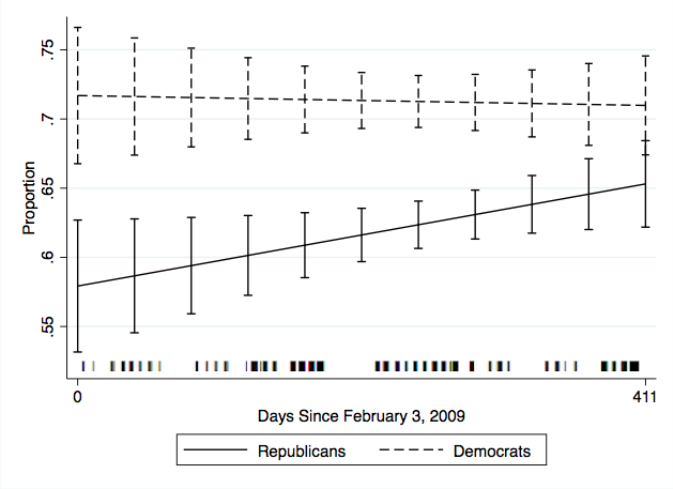
This figure is derived from a linear regression model where the dependent variable is complexity of a speech as measured with a Shannon's diversity index score. The index score has been re-scaled 0-1 with 1 representing the highest level of complexity. The estimates in this figure are drawn from Model 1 in Appendix 1B's Table 1.3. The distribution of speeches across days is displayed by the hash marks on the bottom of the figure.

Figure 1.3 demonstrates that Democratic speeches are more concentrated near the upper end of the distribution. This suggests that, relative to Republican speeches, Democratic speeches tend to be dominated by a single topic. Indeed, only 20% of Democratic speeches had a top topic that covered less than 50% of a speech, compared to 37% of Republican speeches.

Figure 1.4 below models the proportion of each speech devoted to its own most prevalent topic as a function of party and time period. Since higher proportions indicate relative simplicity, the expectation now is that Democratic speeches should demonstrate higher predicted values. Figure 1.4 reveals this to be the case. On average, the most prevalent topic in a Democratic speech covers about 72% of the speech over the full duration of the health care debate. For Republicans, the most prevalent topic covers less than 60% of a full speech delivered in February 2009 and then rises to 65% by the end of March 2010. Figure 1.4 thus provides a substantive understanding of what the simplicity of Democratic speeches looks like. Nearly three-quarters of the average Democratic speech is devoted to a single idea.

This leaves little room for consideration of multiple ideas in a single speech.

Figure 1.4: Proportion of Top Topic by Party and Time

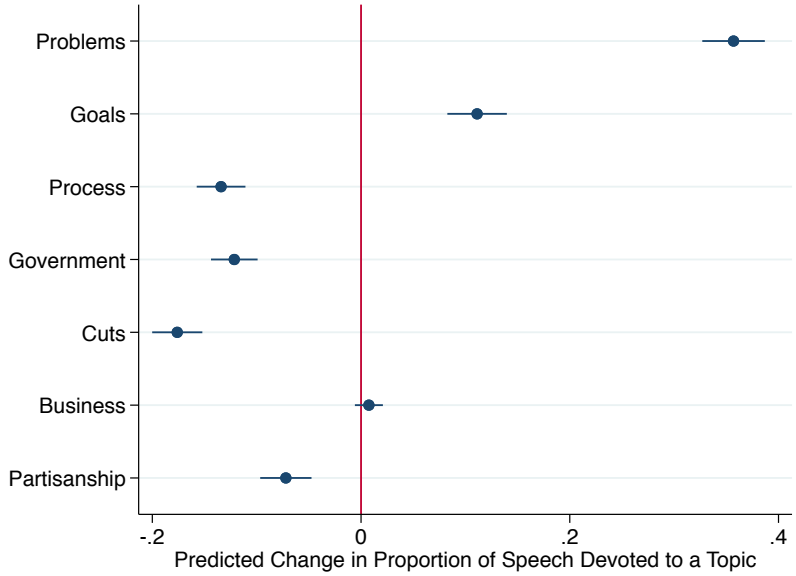


This figure is derived from a linear regression model where the dependent variable is the proportion of a speech devoted to its top topic. The estimates in this figure are drawn from Model 2 in Appendix 1B's Table 1.3. The distribution of speeches across days is displayed by the hash marks on the bottom of the figure.

Attention to Specific Topics

I predict in H4 that supporters of reform should focus more attention on problems and goals than opponents of reform. In H5, I predict that opponents of reform should give more attention to costs, unintended consequences, and the process of policy reform than supporters of reform. Figure 1.5 below provides evidence in support of both hypotheses. The figure plots the coefficients from seven separate linear regressions, each of which regresses the proportion of a speech devoted to the topic on the party of the speaker. Democrats are coded 1 in the party variable, which means the coefficients show the predicted change in topic proportion resulting from a change in speaker from Republican to Democrat.

Figure 1.5: Effect of Party (Democrat) on Attention to Topics



The plotted coefficients represent the effect of moving from the Republican to the Democratic Party on the proportion of a speech devoted to each topic cluster. Each coefficient is derived from a separate linear regression model where the sole independent variable is the political party of the speaker and the dependent variable is the proportion of the speech devoted to the topic.

As predicted, Democrats – the supporters of reform in the health care debate – give more attention to problems and goals than Republicans, who are the opponents of reform. Further, the negative coefficients on party in the process model and partisanship model suggest that Republicans spend more time discussing the process of policy reform than Democrats. The coefficient on party from the cuts model – which, again, combines together discussion of costs with cuts – also demonstrates that Republicans spend more time discussing this topic than Democrats. Finally, the topic underlying the government model is discussion of the expansion of the federal government and the dangers of an increased bureaucracy that would result from the reform proposal. As expected, discussion of this unintended consequence of reform is more prevalent among Republicans than Democrats.

Substantively, the effect of party in the Problem model deserves special note. Compared to Republicans, Democrats devote nearly 40 percentage points more of their speeches to lamenting the problems with the status quo of health care in the United States, and 44% of the average Democratic speech is spent talking about such problems. When paired with

a discussion of the goals of reform, the two topics account for nearly 68% of the average Democratic speech, compared with only 21% of the average Republican speech.

This suggests that Democrats pursued a clear strategy in the health care reform debate: focus most of the public's attention on the ongoing health care crisis and underscore the need to achieve lofty reform goals. Republicans largely avoided these talking points. Instead, they focused on many different topics that diverted attention from the importance of reform. These strategies align well with what my theory of elite debate predicts – namely, the use and avoidance of complexity to, respectively, activate and undermine status quo bias.

Discussion and Conclusion

Political elites tailor their communication to suit their goals. On policy reform, supporters and opponents have different goals and, consequently, pursue different communication strategies. Supporters of reform want to keep discussion of reform simple by focusing on a small set of arguments – chiefly the problems with the status quo and the goals of reform. Opponents of reform want to add complexity to the discussion by bringing up a wider range of arguments and discussing complicating considerations like costs, cuts, and complaints about the reform process. I have provided evidence in this paper for each of these expectations by classifying the range of arguments used in a recent national debate.

Theoretically, my results suggest that political elites' rhetorical strategies involve two sets of choices – decisions about content and decisions about structure. Previous work has focused almost exclusively on the former. In line with that work, I find in this study that supporters and opponents of reform do focus on different substantive ideas. My results also reveal the second dimension of rhetorical strategy. Supporters of reform prefer a simpler debate, and thus structure their rhetoric around a small number of arguments. Opponents prefer complexity, and thus structure their rhetoric around many more arguments. These findings suggest that opponents want to do more than just convince the public that reform is a bad idea. They also want to overwhelm the public with ideas about reform, in the hope

that citizens will retreat from their demands for change (Tyner 2017).

My results demonstrate that supporters and opponents of reform largely focus on different aspects of reform over the course of a debate. Normatively, this departs from what we hope elite debates will accomplish. We want elites to engage in a back and forth about the merits and pitfalls of reform so that the public can become better informed about all of the relevant considerations. By challenging the other side's points, elites can help point the public toward the truth. Unfortunately, national policy debates fall short of this ideal. Each side focuses on their favored talking points and largely ignores the considerations raised by the other side.

These strategies leave the public less informed than we would like and indicate that there is little room for nuance in discussions of policy reform. Opponents of reform ignore the existing social ills that prompted a call for reform in the first place. Supporters of reform opt out of the cost-benefit analyses that underlie responsible policy-making. This seemingly leaves members of the public without strong allegiances to a particular policy outcome with two bad choices: endorse bold reform proposals without regard for their unintended consequences or opportunity costs, or be resigned that nothing can be done to solve pressing problems. The structure and content of elite debate fails to provide a third option. Thus, far from informing the public about pressing policy matters, and far from inviting the public to provide input into the policy-making process, elite debate is designed to use the mass public as a resource to either facilitate or undermine reform.

REFERENCES

Airoldi, Edoardo M & Jonathan M Bischof. 2015. "A regularization scheme on word occurrence rates that improves estimation and interpretation of topical content." *Journal of the American Statistical Association* (just-accepted):00–00.

Arceneaux, Kevin. 2012. "Cognitive biases and the strength of political arguments." *American Journal of Political Science* 56(2):271–285.

Barker, David C & Susan B Hansen. 2005. "All things considered: Systematic cognitive processing and electoral decision-making." *Journal of Politics* 67(2):319–344.

Baumgartner, Frank R, Jeffrey M Berry, Marie Hojnacki, Beth L Leech & David C Kimball. 2009. *Lobbying and policy change: Who wins, who loses, and why.* University of Chicago Press.

Blei, David M. 2012. "Probabilistic topic models." *Communications of the ACM* 55(4):77–84.

Eckles, David L & Brian F Schaffner. 2011. "Risk tolerance and support for potential military interventions." *Public Opinion Quarterly* 75(3):533–544.

Eckles, David L, Cindy D Kam, Cherie L Maestas & Brian F Schaffner. 2014. "Risk attitudes and the incumbency advantage." *Political Behavior* 36(4):731–749.

Ehrlich, Sean & Cherie Maestas. 2010. "Risk orientation, risk exposure, and policy opinions: The case of free trade." *Political Psychology* 31(5):657–684.

Eidelman, Scott & Christian S Crandall. 2009. A psychological advantage for the status quo. In *Social and psychological bases of ideology and system justification*, ed. John T. Jost, Aaron C. Kay & Hulda Thorisdottir. Oxford University Press pp. 85–106.

Eidelman, Scott & Christian S Crandall. 2012. "Bias in favor of the status quo." *Social and Personality Psychology Compass* 6(3):270–281.

Eidelman, Scott, Christian S Crandall & Jennifer Pattershall. 2009. "The existence bias." *Journal of Personality and Social Psychology* 97(5):765–775.

Eidelman, Scott, Jennifer Pattershall & Christian S Crandall. 2010. "Longer is better." *Journal of Experimental Social Psychology* 46(6):993–998.

Entman, Robert M. 2007. "Framing bias: Media in the distribution of power." *Journal of communication* 57(1):163–173.

Fernandez, Raquel & Dani Rodrik. 1991. "Resistance to reform: Status quo bias in the presence of individual-specific uncertainty." *The American economic review* pp. 1146–1155.

Hänggli, Regula & Hanspeter Kriesi. 2012. "Frame construction and frame promotion (strategic framing choices)." *American Behavioral Scientist* 56(3):260–278.

Holian, David B. 2004. "He's stealing my issues! Clinton's crime rhetoric and the dynamics of issue ownership." *Political Behavior* 26(2):95–124.

Hughes, Tyler. 2016. "Assessing minority party influence on partisan issue attention in the US House of representatives, 1989–2012." *Party Politics* p. 1354068816654323.

Jerit, Jennifer. 2008. "Issue framing and engagement: Rhetorical strategy in public policy debates." *Political Behavior* 30(1):1–24.

Jones, Bryan D, Jeffery Talbert & Matthew Potoski. 2003. "Uncertainty and Political Debate: How the Dimensionality of Political Issues Gets Reduced in the Legislative Process." *Uncertainty in American Politics* pp. 118–138.

Jost, John T & David M Amodio. 2012. "Political ideology as motivated social cognition: Behavioral and neuroscientific evidence." *Motivation and Emotion* 36(1):55–64.

Kahneman, Daniel, Jack L Knetsch & Richard H Thaler. 1991. "Anomalies: The endowment effect, loss aversion, and status quo bias." *The Journal of Economic Perspectives* 5(1):193–206.

Kam, Cindy D & Elizabeth N Simas. 2010. "Risk orientations and policy frames." *The Journal of Politics* 72(02):381–396.

Kam, Cindy D & Elizabeth N Simas. 2012. "Risk attitudes, candidate characteristics, and vote choice." *Public Opinion Quarterly* p. nfs055.

MacKuen, Michael, George E Marcus, W Russell Neuman & Luke Keele. 2007. "The third way: The theory of affective intelligence and American democracy." *The affect effect: Dynamics of emotion in political thinking and behavior* pp. 124–151.

McCombs, Maxwell. 2013. *Setting the agenda: The mass media and public opinion*. John Wiley & Sons.

Nowlin, Matthew C. 2015. "Modeling Issue Definitions Using Quantitative Text Analysis." *Policy Studies Journal* .

Ortoleva, Pietro. 2010. "Status quo bias, multiple priors and uncertainty aversion." *Games and Economic Behavior* 69(2):411–424.

Riker, William H. 1986. *The Art of Political Manipulation*. Yale University Press.

Riker, William H. 1990. "Heresthetic and rhetoric in the spatial model." *Advances in the spatial theory of voting* 46:50.

Roberts, Margaret E, Brandon M Stewart, Dustin Tingley, Christopher Lucas, Jetson Leder-Luis, Shana Kushner Gadarian, Bethany Albertson & David G Rand. 2014. "Structural Topic Models for Open-Ended Survey Responses." *American Journal of Political Science* 58(4):1064–1082.

Roberts, Margaret E, Brandon M Stewart & Edoardo M Airoldi. 2016. "A model of text for experimentation in the social sciences." *Journal of the American Statistical Association* (just-accepted):1–49.

Tversky, Amos & Daniel Kahneman. 1974. "Judgment under uncertainty: Heuristics and biases." *science* 185(4157):1124–1131.

Tyner, Andrew. 2017. "The Effect of Complex Political Debates on Attitude Strength and Political Action." Presented at the Midwest Political Science Association meeting in Chicago, IL.

Van den Bos, Kees & E Allan Lind. 2002. "Uncertainty management by means of fairness judgments." *Advances in experimental social psychology* 34:1–60.

Van den Bos, Kees et al. 2009. "The social psychology of uncertainty management and system justification." *Social and psychological bases of ideology and system justification* pp. 185–209.

Zink, James R & Christopher T Dawes. 2015. "The Dead Hand of the Past? Toward an Understanding of 'Constitutional Veneration'." *Political Behavior* pp. 1–26.

Goal Clarity, Complexity, and Issue Engagement in Direct Democracy

Empowering citizens to vote directly on legislation is a long-standing tradition in American politics. By removing legislators from their mediating role between the public and policy, states allow citizens to directly engage with the trade-offs and uncertainties at the heart of lawmaking. Researchers disagree about the public's suitability for this task, particularly since the consequences of many ballot measures are often extensive. Nevertheless, recent years have seen an increase in ballot initiatives and referenda across the states. In the 2016 general election, voters across 34 states considered 154 ballot measures on topics as diverse as the minimum wage, solar energy, and higher education administration. Almost 40% were decided by a margin smaller than 15 points, illustrating that a small number of voters' decisions can be consequential to policy outcomes.[1]

That citizens can ably make judicious policy decisions is far from obvious. Indeed, the American public is notoriously disinterested and disengaged from politics. A common explanation offered for the public's political disinterest is the complexity of contemporary politics. Political issues and arcane institutional rules are seen as too complicated for the average citizen to follow. This helps explain the public's interest in campaigns relative to policy-making and, within policy-making, the greater interest in symbolic issues relative to more technical issues (Nicholson 2003). If the political issues that citizens are asked to consider are too complex, then we should not expect direct democracy to generate optimal policy solutions.

A subtle but important distinction exists between an issue's inherent complexity and whether citizens perceive the issue to be complex. The latter depends on how the issue is conveyed to the public. Even on issues that involve highly technical solutions and widespread

[1] `https://ballotpedia.org/2016_statewide_ballot_measure_election_results`

disagreement about the appropriate policy instruments, the public's attention can be drawn toward or away from complicating aspects of the issue. Voters' decisions on policy issues can be made simpler or more complex by the kinds of considerations that come to the fore.

Herein, I argue that the policy goals of a reform proposal are a key consideration that can help simplify voters' decision-making. Policy goals convey what a reform proposal is trying to accomplish, and they often involve a social outcome that many citizens consider important. The goals of a reform proposal are relatively easy to evaluate, since voters need only ask themselves whether they find the social outcome to be agreeable. When the reform goals constitute voters' primary consideration about a proposal, voters should be more able and willing to deliver policy decisions about it.

Clearly conveyed policy goals in the text of ballot measures should make citizens more likely to participate in direct democracy and more likely to support reform when they do so. Voters should be more willing to participate because clearly conveyed goals make issues seem less complex and strengthen citizens' attitudes about the underlying issue. They should also be more willing, on average, to support reform when they understand the measure's goals, because agreeable goals help voters overcome status quo bias. Further, voters' political predispositions should be more predictive of their decision when the goals of reform are clear, because voters more easily see how their predispositions line up to the ballot measure.

I test these expectations through two studies. First, I analyze voter behavior on a set of 81 ballot measures appearing across 13 states in the 2012 general election, where I find evidence that clear goals make citizens more likely to participate, more likely to support reform, and better able to align the issue to their predispositions. In a second study, I construct an original survey with an embedded experiment to test two mechanisms underlying my theory: perceiving the policy goals of reform to be clear should make ballot measures seem less complex and should make citizens' attitudes about the measures stronger. I find support for both expectations.

My findings suggest that policy goals play a central role in voters' response to reform

proposals. They simplify the decision context and help voters see policy issues in terms of familiar lines of political conflict. This allows voters to develop policy attitudes and hold them with enough confidence to apply these attitudes to their vote choices. This study thus demonstrates the behavioral effects of a key piece of information – namely, how clearly the policy goals of reform are conveyed to voters. In turn, understanding how this feature of ballot measures affects citizen response provides leverage on larger questions about issue mobilization in the mass public.

Goal Clarity in Policy Reform Disputes

I argue that an important factor determining how citizens will understand and respond to a ballot measure is the clarity of its goals. Any reform of the policy status quo is designed to achieve at least one social or political goal. These can range from reducing recidivism in the criminal justice system, to strengthening charter schools, to ensuring the fiscal solvency of public goods. Policy goals represent the starting point of most debates over issue reforms. They are the best argument that supporters of reform can make to the public: there's a worthy goal that we can achieve, and the policy instrument before you will help achieve it. Accordingly, reform supporters campaign vigorously to promote a reform's policy goals and the problems they will directly address, while opponents focus on anything else (Tyner 2016). Policy goals are identifiable by three characteristics.

First, policy goals are instrumental. They accomplish particular objectives with particular policy instruments. They differ in this way from other common accounts of goals, such as the one laid out by Stone (2012). For Stone, goals are abstract ideas. They represent "the enduring values of community life" that we use to evaluate specific policy proposals (Stone 2012, 14). The instrumental goals in my definition are linked to terminal concepts, though. Stone's terminal goals – equity, welfare, liberty, security, and efficiency – are just one step removed from policy goals, and they serve as policy goals' ultimate rationale. The reason to accomplish the policy goal of expanding health insurance coverage is to achieve

welfare and equity. As terminal goals, welfare and equity require no justification – they speak for themselves. Policy goals, by contrast, often require justification. Thus, citizens could plausibly agree or disagree with a particular policy goal.

Second, policy goals are purposeful since they refer to a higher political end. On ballot measures, a subtle but important distinction exists between the policy goal and what the measure directly accomplishes. Often the latter is clearly stated, such that the direct effect of a ballot measure is clear, even when the purpose of that effect is unclear. One example from the analysis below is a ballot measure to allow a single, named company to open one casino in a specific county in the state. *What* this measure is aiming to accomplish is clear – opening a casino in a specific location – but *why* it is happening is left unstated. A measure's goals are about the why: they are the answer a proponent would give if they were asked why they were supporting it. Goals are what one finds in party platforms and campaign websites: supporting public education, eliminating fraud and waste in government programs, or reducing reliance on fossil fuels. Opening a single location in a single county will never find itself on a campaign website or party platform. Goals, by contrast, address an important social concern.

Finally, policy goals address widely recognized public concerns. As such, they are motivating. They provide a reason for citizens to participate that goes beyond civic duty. In elections, goals are the promises that parties and politicians make to voters, and they underlie the exchange of support between them. On a ballot measure, goals convey why the specific policy changes contained in the measure should be supported in the first place. Policy goals are central to political decision-making (Stone 2012).

Thus, the primary consideration voters face when deciding to support or oppose a reform proposal is whether its policy goals are agreeable or disagreeable. Without understanding whether a proposal accomplishes a goal worth supporting, a voter cannot develop a clear position on it. Holding a clear position underlies strong attitudes and a firm commitment to one side or the other. Voters thus require a clear position to vote on the reform instead

of abstaining. Accordingly, voters should be more likely to vote on a ballot measure when they better comprehend the goals it is aiming to accomplish.

On ballot measures, a primary way that voters come to understand reform goals is the text of the measure itself. For many voters, their first encounter with the measure is in the voting booth, so any considerations about the goals of reform have to derive from what they read. The text of a ballot measure can make its purpose relatively clear or unclear. The goal clarity of a ballot measure increases as the policy goals underlying the measure are articulated more explicitly or as the goals can be more easily deduced from the ballot text.

As an example, the following ballot measure from Michigan in 2012 has a relatively clear goal: "Proposal 12-3, the Renewable Energy Amendment, would require utilities to obtain at least 25% of their electricity from clean renewable energy sources, which are wind, solar, biomass, and hydropower, by 2025." The goal of the measure is made explicit by its name: the promotion of renewable energy. Even without the name, voters should be able to deduce the purpose of the measure from the specific policy change it would effect. By contrast, the underlying goal of the following ballot measure from Arizona is relatively unclear: "Proposition 117 sets a limit on the annual percentage increase in property values used to determine property taxes to no more than 5% above the previous year, and establishes a single limited property value as the basis for determining all property taxes on real property, beginning in 2020." Nowhere in the text of the measure is the ultimate policy goal made explicit. Further, only voters with a high level of sophistication will comprehend that the purpose of the measure is to lower the overall property tax rate.

Clearly conveyed policy goals help citizens develop a clear position on the measure and hold it with firm conviction. Once a voter understands that Proposal 12-3, for example, is designed to promote renewable energy, her decision rule on the measure becomes easier: support the measure if she agrees with the policy goal, or oppose the measure if she disagrees with it. Undoubtedly other considerations will impact many voters' decisions to support or oppose the measure. What matters is that without first comprehending the goal, a voter has

no basis for developing a position. Thus, she will be more likely to abstain from the vote.

Further, competing considerations about a policy issue can make citizens uncertain and prompt political disengagement (Zaller & Feldman 1992). In the context of ballot measures, considerations that pull voters in both directions can cause them to abstain from voting on the measure. A clear policy goal enables voters to look for just enough information to provide a confident decision without performing an exhaustive information search or effortful processing (Simon 1985, Lavine, Johnston & Steenbergen 2012). When the policy goal is important enough to a voter to prompt a strong reaction, competing considerations about the measure can be more easily dismissed. In this way, clear policy goals simplify decision-making by allowing for satisficing behavior.

- ***H1:*** *Voters should be more likely to vote on a ballot measure when its goals are clearer.*

Owned and Unowned Policy Goals

Clear goals should prompt citizens to vote on a ballot measure instead of abstaining. Whether they vote to support or oppose it depends on the content of the goal. For policy goals that are unassociated with a particular party, clear policy goals should increase support for reform. For policy goals that are the subject of partisan conflict, clearly conveyed policy goals should help voters register a vote choice that aligns with their political predispositions.

Policy goals vary by how closely they are aligned with a party or an ideological camp. Some goals have become owned by one party over time – for example, limiting access to firearms or reducing the regulatory burden on businesses. By contrast, other goals share a consensus across political divisions, such as fostering economic growth (Egan 2013). The distinction between ideological and shared goals is distinct from but closely related to the difference between position and valence issues (Fiorina 1981).

Clearly conveyed shared and ideological goals in the text of ballot measures should facilitate voters' decision-making by helping them meet their psychological needs. Shared goals, in particular, should help voters address their status quo bias. An extensive psychological literature suggests that people are risk-averse and predisposed to favor the status quo, which

biases their preferences in favor of maintain existing arrangements over pursuing alternatives (Eidelman & Crandall 2012, Kahneman, Knetsch & Thaler 1991). Individuals' preferences for precedent and their tendency to see changes (and the people seeking them) as extreme and unreasonable make their default position opposition to change, particularly when they feel uncertainty about it (Fernandez & Rodrik 1991). This owes, in part, to people's tendency to misperceive changes to the status quo as overly drastic (Enelow & Hinich 1984). Bias in favor of the status quo has been used to explain the challenges of achieving reform on policy preferences, procedural matters, and election outcomes (Eckles, Kam, Maestas & Schaffner 2014, Kam & Simas 2012, Zink & Dawes 2015, MacKuen, Marcus, Neuman & Keele 2007).

Status quo bias will be particularly strong when the goals of reform are unclear. The uncertainty of change can be tolerated when the goals of reform are worthy enough. When there is no clear goal guiding the reform, the certainty of the status quo should win out. Without an active reason to support a reform effort – an active reason that would be provided by clearly understanding a reform's goals – voters' status quo bias will cause them to default toward opposing it. When a ballot measure's goal is both clearly understood and shared across political divisions, voters should respond by supporting it.

- ***H2:*** *For ballot measures with shared goals, goal clarity increases support for reform.*

Because shared goals are agreeable across political divisions, their clarity in ballot text should increase support among all voters. By contrast, the effect of clearly conveyed ideological goals should depend on voters' political commitments. Ideological goals allow voters to see ballot measures in partisan, ideological, and group-based terms. Voters' response to ballot measures with clear ideological goals should depend on their political predispositions.

Partisan identity, ideological commitments, and group attachments are important predispositions for voters. They are symbolic attitudes that voters want to maintain when making decisions, and their strength means that issue positions more often conform to predispositions than vice versa (Lavine, Johnston & Steenbergen 2012, Lenz 2012, Sears, Lau, Tyler &

Allen 1980). Voters want their political decisions to align with their longer-standing political commitments. Accordingly, party and group cues often influence voter decision-making on ballot measures (Boudreau & MacKenzie 2014, Lupia 1994).

In the absence of group cues in the text of a ballot measure, voters must rely on other features of the text to determine whether they should support or oppose it. Clearly conveyed ideological goals help voters make this decision by providing a strong signal about the partisan or ideological agenda behind the measure. Even an unsophisticated voter will know that a measure to restrict abortion rights was generated by conservatives and Republicans. Thus, if clear ideological goals help voters connect their predispositions to ballot measures, voters' predispositions should be more predictive of their vote choice when goals are clear.

- ***H3:*** *For ballot measures with ideological goals, goal clarity helps citizens vote in line with their predispositions.*

Clarity and Complexity in Direct Democracy

Above, I propose that goal clarity is an important characteristic that determines how citizens evaluate ballot measures. A necessary step in developing the case that goal clarity guides such decisions is to distinguish it from other ballot characteristics that might influence voting decisions – particularly characteristics that shape how complex a ballot measure seems. Here, I conceptually distinguish goal clarity from two prominent concepts in the direct democracy literature. Later, I assess their empirical relationships.

The first related concept is the difficulty of the underlying issue of the policy reform. Issues are often considered hard or easy according to the classification system developed by Carmines and Stimson, where hard issues tend to revolve around economic matters and the management of public resources and hard issues are those categorized as social (1980). Ballot measures with easy issues have been found to prompt greater awareness and greater participation than ballot measures with hard issues (Milita 2017, Milita 2015, Nicholson 2003). Along similar lines, voters are less willing to vote on and less willing to support ballot measures featuring a large volume of discrete policy changes, which is often characteristic of

reform on hard issues (Hessami 2016).

A second related concept is the presentation of the ballot text. The word count and readability of a ballot measure often serve as measures of its complexity (Reilly & Richey 2011, Milita 2015). The former has been found to decrease willingness to vote on measures. Similarly, longer ballots that include many propositions interfere with voters' ability to translate their policy preferences into a vote choice (Selb 2008). Researchers have also found that framing measures in terms of protections versus rights and in terms of repealing an existing policy can decrease support for reform. These frames also make those who would otherwise support reform abstain, effects that are as strong or stronger on easy issues than hard issues (Hastings & Cann 2014, Burnett & Kogan 2015).

Taken together, these studies demonstrate that the content and presentation of a ballot measure shape voter behavior. What these studies of complexity miss, though, is the question that voters ask themselves first when considering a ballot measure: namely, are the goals of this measure worth supporting or opposing? Hard issues and lengthy ballot texts might make it more difficult for a voter to think through the consequences of a measure, but that does not mean the measure is inscrutable. With a clear policy goal guiding their considerations, voters can register a confident vote choice about easy and hard issues alike.

Study 1: Data and Design

To test the expectations articulated above, I turn to the 2012 ANES Direct Democracy study, a two-wave panel that was administered shortly before and after the 2012 general election. 5,415 participants were recruited from 13 states that had measures on the ballot that year. Respondents were shown the measures' texts and asked a series of questions about each one. The number of ballot measures each respondent saw depended on their state, ranging from 2 to 11.

These data are well suited to distinguish between two theories of issue engagement: one prioritizing the category of the underlying issue (easy or hard), and the other prioritizing

how clearly the goals are conveyed. Because the 81 ballot measures vary by issue area *and* goal clarity, the expectations from both theories can be simultaneously tested.

By including questions about each ballot measure's ideological, partisan, and group associations, the ANES data also allow the mechanisms behind my theory of participation and support to be tested. Further, the ANES data provide questions necessary for both a political sophistication control variable and a measure of symbolic ideology. Finally, by focusing on real ballot measures that most respondents had the chance to learn about and vote on outside of the survey environment, this study has a particularly high degree of external validity.

Variables

Above, I suggest that the clarity of a ballot measure's goals affects citizens' decisions to participate in the direct democracy process. It also affects their decisions to support or oppose the measure. I rely on two variables from the ANES to measure these concepts. Issue participation is measured as a dichotomous variable indicating whether a respondent voted on the ballot measure (1) or abstained (0). Support for reform is a dichotomous variable indicating whether the respondent voted in favor of (1) or against (0) a particular measure. Only respondents who voted at all on the ballot measure are included in this variable.

The key concept at the center of my theory is goal clarity. Goal clarity refers to how clear the goals or overall purpose of a ballot measure is from its text. It is a hand-coded measure based on the text of the ballot measure, and it can take on values of 0, 0.5, or 1, where 1 represents very clear goals. The coding guidelines are as follows: "How easy or difficult is it to understand the goal(s) of this ballot measure? Goals should be thought of as a central purpose of the ballot measure. If you asked the proponents why they were in favor of a ballot measure, the goal would be their answer. Examples: funding K-12 education; protecting the sanctity of life; limiting campaign contributions and spending." A ballot measure's goal or purpose can differ from what it directly accomplishes. Often the latter is clearly stated, such

that the direct effect of a measure is clear, even when its purpose is unclear. One example from the data analyzed below is a proposal to allow a single, specific company to open one casino in a specific county in the state (Arkansas). What this ballot measure is aiming to accomplish is clear – opening a casino in a specific location in Arkansas – but *why* it is happening is left unstated.[2]

As I note above, I also wish to account for other ballot characteristics that might determine voters' decisions, and which will help assess the distinctiveness of my goal clarity measure. The first of these is whether an issue is easy or hard, which I include as a dummy variable in the analyses below. The definitions of easy or hard are borrowed from Ellis and Stimson (2012): social issues are easy and economic issues are hard. This definition is potentially simplistic, particularly on ballot measures that mix elements of both. Even so, it remains a useful generalization. I classify a measure as economic if the underlying issue is about regulation of economic conduct or the management of public goods and programs, and I classify a measure as social if the issue is about the regulation of personal, non-economic conduct. Social issues also include law and order ballot measures and other measures that feature culturally salient issues. Ballot measures that focus primarily on procedural reforms are neither social nor economic. I classify them as hard because they fit the definition of hard issues that Carmines and Stimson (1980) lay out in their original article.

Because citizens' voting decisions are also shaped by the ideological tilt of the ballot measure, I include a variable assessing the direction of policy reform that takes three categories. The excluded category is that the policy reform is neither liberal nor conservative. The non-excluded categories are that reform pushes policy in a liberal direction and that reform pushes policy in a conservative direction. A ballot measure is considered to move policy in a liberal direction if it addressed traditional concerns of the political left (e.g. raising revenues

[2]To assess the reliability of this measure, I trained two undergraduate students to hand-code the full set of 81 ballot measures. The weighted Cohen's kappa coefficients between each student's codes and my own were 0.60 and 0.57, respectively. These coefficients are moderate. Accordingly, I include in Appendix 2A replications of each table and figure in Study 1 with the average of the two coders' clarity scores substituted for my own. Most results are robust across both sets of scores.

and tax rates; greater financial support for welfare programs and public education; broadening access to marijuana). A measure is considered to move policy in a conservative direction if it addressed traditional concerns of the political rights (e.g. capping public revenues and lower tax rates; limiting access to abortion; adopting a more punitive approach to combatting crime). A measure is considered to move policy in neither direction if it addresses a policy concern unassociated with the left or right (e.g. reorganizing government operations to make them run more efficiently). Ballot measures that address concerns of both the left and the right are also categorized as neither.

It is also important to account for respondent-level characteristics that help determine vote choice, and which might interact with ballot characteristics. As such, I measure how informed the respondent is about each measure they read and each respondent's ideology. I also include an additional control for political sophistication, discussed below.

Respondents reported how informed they were about each ballot measure they saw on a 1-5 scale, where 5 indicates the highest level of information about a measure (rescaled to 0-1 below). This independent variable thus varies both by individual and by ballot measure. I include this self-reported variable to account for differences in the campaign environment surrounding each ballot measure. Presumably some of the measures received more attention from media outlets and statewide political organizations than others. Further, voters' understanding of a measure should increase as media and campaign attention increases, which should make them more comfortable voting on it instead of abstaining. Since partisan ballot measures are more likely to be subject to organized campaigning, controlling for respondents' level of information addresses this potential confound.

Respondent ideology is measured as a seven-item symbolic ideology score that ranges from extremely liberal to extremely conservative. This measure correlates strongly (0.74) with an 11-item operational ideology scale I constructed from 11 opinion items (Cronbach's alpha = 0.84), but because of missing values on the operational scale, I use the symbolic scale in the analyses below.

Beyond these central predictors, I also include a range of additional ballot-level and individual-level controls. To account for other measures of complexity in the direct democracy literature, I control for each ballot measure's word count and readability[3]. I also control for respondents' level of political sophistication[4] and the state where each respondent lives[5].

The dependent variables discussed above are either dichotomous or categorical. In the analyses to follow, I run a series of logistic or ordered logistic regression models to test my hypotheses. Each model includes random effects for individual respondents to account for any clustering, since each respondent answered questions about more than one ballot measure. The central independent variable in each model is goal clarity, per my theory.

Study 1: Results

Above, I discuss how goal clarity is conceptually distinct from other ballot features that might determine citizens' responses. Of course, even if there is a conceptual line to be drawn, it is important to establish that goal clarity is empirically distinguishable from these other factors. I begin by assessing whether goal clarity empirically separates enough to be considered as an independent predictor of how citizens respond to ballot measures.

Table 2.1 shows the distribution across clarity scores of four ballot measure-level control variables. The measures of word count and readability are evenly distributed across the

[3]Readability is measured by reverse coding the text's Flesch–Kincaid grade level score, which is a commonly accepted measure of the reading level required for comprehension. It is calculated as (0.39*(total words/total sentences) + 11.8*(total syllables/total words) - 15.59). Higher scores indicate the ballot measure is easier to comprehend.

[4]Political sophistication is measured as each respondent's ability trait score (θ), which is extracted from a three-parameter IRT model of 11 binary items about respondents' political knowledge and participation: correct answers to four knowledge questions (length of term for a U.S. Senator; the purpose of Medicare; the relative amount of federal spending on foreign aid; and the party controlling the U.S. House); participation in six political activities (voting in the 2012 general election; signing an online petition; signing a paper petition; calling into a radio or TV program about a political issue; sending a social media message about a political issue; and writing to a newspaper or magazine about a political issue); and correctly identifying the Democratic Party as relatively liberal and the Republican Party as relatively conservative

[5]The ANES includes ballot measures from 13 states. Each respondent only saw measures that appeared on their state's 2012 general election ballot. The number of measures varies between 2 and 11 depending on the state.

three levels of goal clarity. Further, the goal clarity of ballot measures featuring a hard issue varies considerably, though measures with easy issues tend to also have clearer goals. Easy issues are often highly salient, focused on symbolic concerns, and long-standing features on the national political agenda (Ellis & Stimson 2012). Accordingly, it is more difficult to mask the underlying goal of an easy issue reform than a reform of a hard issue. All the same, Table 2.1 demonstrates that my goal clarity variable measures something different than these other measures of complexity.

Table 2.1: Distribution of ballot characteristics across clarity scores.

	Clarity = 0 (unclear)	**Clarity = 0.5**	**Clarity = 1 (clear)**
Easy issue	0	3	16
Hard issue	22	14	26
Readability above median	12	6	23
Readability below median	10	11	19
Word count above median	10	12	18
Word count below median	12	5	24
Liberal reform	2	3	21
Conservative reform	1	8	8
Neither liberal nor conservative	19	6	13

Turning to the hypotheses, the prediction in H1 is that voters will be more likely to vote on a ballot measure as its goals become clearer. Model 1 in Table 2.2 shows evidence in support of this hypothesis. The dependent variable is voting on a measure, instead of abstaining, and it is estimated as a logistic regression model with random effects for respondents.

The coefficient on the goal clarity variable, as expected, is positive and statistically significant, indicating that clearer goals increase the likelihood of voting. Substantively, a change in goal clarity from 0 to 1 increases the predicted probability of voting on a ballot measure by 3.6 percentage points.[6] In line with expectations, respondents are also less likely to vote on hard issues and are more likely to vote on measures as their own political sophistication and level of information about the measure increase. In contrast to claims from the literature, readability has no effect on likelihood of voting, and increasing the word

[6]The 3.6 percentage point shift is calculated when all of the scaled covariates are set at their mean and the categorical covariates are set to their modes: a hard issue that moves policy in neither a liberal nor conservative direction in the state of California.

count of a measure actually *increases* the chances that a respondent votes on it. I had no expectations about the effect of ideology, but respondents become significantly more likely to vote on a ballot measure as their level of conservatism increases.

Table 2.2: Respondents are more likely to vote on all measures and support non-ideological measures as their goals become clearer.

	(1) Vote	(2) Support
Goal Clarity	0.86** (0.11)	0.97** (0.07)
Hard Issue	-0.25* (0.10)	0.72** (0.11)
Liberal Reform	0.27* (0.11)	
Conservative Reform	-0.05 (0.09)	
Ideology	0.98** (0.34)	-0.37** (0.14)
Readability	-0.49 (0.33)	-0.37 (0.25)
Word Count	0.94** (0.23)	-1.44** (0.17)
Sophistication	5.49** (0.55)	-0.42+ (0.24)
Level of Information	3.57** (0.18)	0.10 (0.11)
Constant	2.28** (0.64)	2.70** (0.37)
Observations	25,666	10,377

Standard errors in parentheses
+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$ (two-tailed)

Both models are logit with weights and random effects for individual respondents. On the left, the dependent variable is coded 1 if the respondent voted on the measure and 0 if she abstained. On the right, the dependent variable is coded 1 if the respondent voted in favor of the measure and 0 if she voted against. All variables are coded 0-1. Clarity of goals can take on values of 0, 0.5, or 1, where 1 indicates that the goals of the ballot measure are very clear. Only respondents who voted in the 2012 general election are included in the model on the left; in the model on the right, only respondents who voted in the 2012 general election and voted on the measure are included. The model on the right is restricted to non-ideological ballot measures.

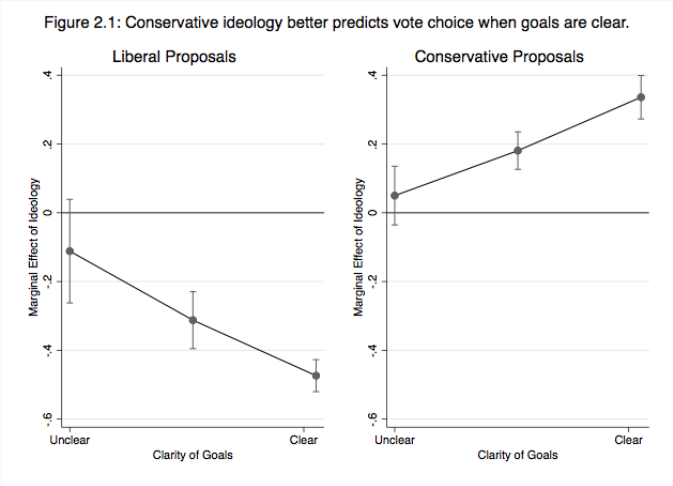
The second hypothesis predicts that voters are more likely to support a ballot measure when its goals are both shared and clear. Accordingly, I restrict the sample of ballot measures to those that move policy in neither a liberal nor conservative direction for this test. Beyond the change in sample, Model 2 in Table 2.2 fully replicates the first model but with a new dependent variable: voting in support of the ballot measure. Here again the coefficient on goal clarity is positive and statistically significant, providing support for H2. Further, a change in goal clarity from 0 to 1 increases the predicted probability of supporting reform by 17.1 percentage points.[7] The coefficient on the hard issue dummy variable is positive and significant, indicating that once citizens have decided to vote on a measure, hard issue reforms are more likely to receive support than easy issue reforms. As with the previous model, the readability of a measure has no effect on voters' likelihood of supporting it. In

[7] As with the first model, the predicted probability change is calculated with the scaled covariates set at their means and the categorical covariates set at their mode.

line with expectations from the literature, longer word counts make voters more likely to vote against a measure. Interestingly, voters become less likely to support reform as they become more conservative, perhaps reflecting a status quo bias within the conservative ideology.

Clear goals should also help voters connect their ideologies to their vote choice. On measures with ideological goals, ideology should thus become more predictive of vote choice as goal clarity increases (H3). To test this hypothesis, I replicate the second model in Table 2.2, but with an interaction between goal clarity and respondent ideology. Further, I separately the analyses by the direction of reform achieved by the ballot measure. The expectation is that moving across the range of respondent ideology – extremely liberal to extremely conservative – should make voters more likely to support conservative measures and less likely to support liberal measures as their goals become clearer.

Figure 2.1 tests this expectation by showing the marginal effect that a change in ideology has on the probability of supporting reform across different levels of goal clarity for liberal and conservative reforms. The results support H3. At the lowest level of goal clarity, the effects of ideology on support for conservative and liberal reforms are indistinguishable from zero. The effects increase in magnitude and in the predicted opposing directions as the goals of a measure become clearer. They are also substantively large. On liberal reforms, strong conservatives are just as likely as strong conservatives to support reform when the goals are unclear. By contrast, when the goals are clear, the probability of support a liberal reform drops by over 40 percentage points when ideology shifts from strong liberal to strong conservative. The same shift in ideology results in a nearly 40 percentage point *increase* in likelihood of supporting conservative reforms when their goals are clear. The full model from which this figure is derived is contained in Appendix 2A below.



Each figure is derived from a logit model with weights and random effects for respondents where the dependent variable is 1 if the respondent voted in favor of a measure and 0 if she voted against. On the left, the measures push policy in a liberal direction. On the right, the measures push policy in a conservative direction. The marginal effect is the change in probability of voting in favor of the measure as a respondent moves from extremely liberal to extremely conservative, and as the clarity of the goals moves from unclear (0) to clear (1). The bars indicate 95% confidence intervals. A -.5 marginal effect indicates, for example, that the probability of voting in favor of reform has dropped by 50 percentage points. The same set of controls included in the models in Tables 2.2 and 2.3 are included here, with continuous variables set at their mean, the hard issue dummy set at 1 (indicating a hard issue), and the state set as California. Only respondents who voted in the 2012 general election *and* voted on the measure are included in these models.

Activation of Predispositions as a Mechanism

Above, I suggest that, for ballot measures with ideological goals, goal clarity activates political predispositions. The ANES dataset provides three additional measures that might help establish this as a mechanism giving rise to the result in Figure 2.1. First, the ANES asked respondents to place each ballot measure they read on a 7-point ideological scale (extremely liberal to extremely conservative). If activation of predispositions is the key mechanism, then we should expect ballot measures to seem more ideologically extreme as the clarity of their goals increases.[8]

Second, the ANES asked respondents whether they thought businesses, labor unions, the governor of their state, the Democratic Party, or the Republican Party were campaigning in support or opposition of each ballot measure they read. I make the assumption that respondents will answer yes to one or both of the parties if they think the ballot measure has a partisan bent to it, even if they have not seen any campaign materials from the named

[8]I measure ideological extremity by folding the placement variable at its midpoint. This produces a 4-item scale where 0 indicates the respondent thought of the ballot measure as moderate and 3 indicates she thought of it as extremely liberal or extremely conservative.

party. Thus, I construct a measure of perceived partisanship from that set of questions, and my expectation is that clear goals will make respondents more likely to think of a ballot measure as partisan.

Third, I expect that ballot measures with clear goals should be seen as closely aligned with salient social groups. I test this with an open-ended response question that respondents were provided for each ballot measure they read. On this question, they were asked to name the group of people who would be most affected by the ballot measure. The variable is binary, with 0 representing either a non-response to that question or a generalized response and 1 representing a substantive response. Non-responses are theoretically interesting because they indicate that a respondent could not name a specific group affected by the proposal. Thus, non-responses are included in the analysis and not treated as missing data.[9] To measure whether the associated social group is salient, I construct a dichotomous variable indicating whether, among those respondents who typed in a specific group, they had any kind of emotional reaction to it. This was constructed from a 7-item like/dislike scale, where 4 (neither like nor dislike) is coded as 0 and 1-3 or 5-7 are coded as 1. My expectations are that clear policy goals should make respondents more likely to name a group, and more likely to have an affective reaction to the group they named.

I test each of these expectations by replicating the second model in Table 2.2 with the four dependent variables just described. The results are contained in Table 2.3. As expected, the coefficient on goal clarity is positive and statistically significant across all four models. As the goals of an ideological measure become clearer, the measure is seen as more ideologically extreme, more partisan, and more associated with social groups, particularly groups that

[9]A non-response is specifically defined as leaving the open response blank or typing in some variant of "none," "no groups," "nobody," "no one," "I don't know," "I can't say," "I have no idea," "I don't understand," "I'm not sure," "who cares," "who knows," "unknown," "uncertain," "idk," "hard to say," or "NA." A generalized response is any variant of "all," "everyone," "all people," "all citizens," "citizens," "individuals," "all individuals," "all races," "us all," "a lot," "the population," "general public," "all classes," "humans," "society," "society at large," or "all of us." Respondents were also scored as 0 on this measure if they typed in only a single character, if their response only included digits, or if their response was "many," "most," "some," "few," or "one."

evoke an emotional response. Substantively, a change in goal clarity from 0 (the lowest level of clarity) to 1 (the highest level of clarity) makes respondents 9.42 percentage points more likely to see a ballot measure as partisan, 21.56 percentage points more likely to name a specific social group affected by it, and 8.65 percentage points more likely to have an emotional reaction to the named group. Additionally, a shift from the lowest to the highest level of clarity makes respondents 6.51 percentage points *less* likely to claim that the ballot measure is at the lowest level of ideological extremity (moderate).

Table 2.3: Clear goals make ideological measures seem more ideologically extreme, partisan, and relevant to salient social groups.

	(1) Extremity	(2) Partisanship	(3) Group Named	(4) Affective Group Response
Goal Clarity	0.41** (0.11)	0.78** (0.11)	1.76** (0.11)	0.60** (0.14)
Hard Issue	-0.05 (0.08)	-0.48** (0.07)	-0.07 (0.06)	-0.50** (0.08)
Conservative Reform	-0.56** (0.08)	0.31** (0.07)	-0.60** (0.07)	0.21* (0.09)
Ideology	0.47* (0.22)	0.30 (0.22)	-0.21 (0.21)	0.60** (0.20)
Readability	0.10 (0.26)	0.23 (0.23)	-1.23** (0.23)	-1.01** (0.27)
Word Count	-0.07 (0.22)	-1.02** (0.21)	0.85** (0.20)	0.25 (0.24)
Sophistication	4.49** (0.46)	3.43** (0.36)	4.76** (0.36)	1.37** (0.35)
Level of Information	1.53** (0.14)	0.72** (0.11)	0.77** (0.11)	0.69** (0.13)
Constant		-1.87** (0.35)	-2.56** (0.35)	-0.82* (0.35)
State Dummy Variables	Yes	Yes	Yes	Yes
Observations	14,068	14,258	14,258	8,816

Standard errors in parentheses

$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$ (two-tailed)

The dependent variables across the four models are, respectively: perceived ideological extremity of the measure (coded 0-3); whether or not the respondent thought at least one party campaigned in favor or against the measure; whether or not a specific affected group could be named; and whether or not respondents had an emotional reaction to the group they named. All independent variables are coded 0-1. Clarity of goals can take on values of 0, 0.5, or 1, where 1 indicates that the goals of the ballot measure are very clear. Model 1 is ordered logit with clustered standard errors, weights, and random effects for individual respondents, and models 2-4 are logit with weights and random effects for individual respondents. These models include ballot measures that moved policy in either a liberal or conservative direction. Only respondents who voted in the 2012 general election are included.

Study 2: Data and Design

Study 1 demonstrated that clear policy goals make citizens more likely to vote on ballot measures and more likely to support reform when the measure's goals are shared across the ideological spectrum. By contrast, when a measure pushes policy in a liberal or conservative direction, clear goals help voters align their vote choice with their ideologies. This is because clear goals help voters see the relationship between an ideological measure and broader ideological, partisan, and group-based conflicts.

Study 1 thus found evidence for behavioral effects resulting from clear policy goals. It

also pointed toward a mechanism underlying some of those relationships: namely, helping voters see ballot measures in terms of their political predispositions. Left untested in Study 1 are two additional mechanisms suggested by my theory. Study 2 tests these mechanisms and introduces a random assignment to supplement Study 1's observational findings.

Clear policy goals should make ballot measures seem less complex. By providing a clear reason to support or oppose a measure, clear goals help citizens downweight competing considerations that push them in either direction (Zaller & Feldman 1992). When the policy goal is the central consideration that a citizen has to weigh, it helps clarify the decision-making process and simplify the vote choice.

- ***H4:*** *Voters should see a ballot measure as less complex as the measure's goals are perceived to be clearer.*

Further, clear policy goals should strengthen citizens' issue attitudes. Competing considerations about a measure can lead to ambivalent reactions, which should weaken attitudes. By contrast, when a single consideration comes to the fore – namely, whether one supports or opposes the measure's policy goal – citizens' attitudes should become stronger. Evaluating a policy goal is a relatively easy task, so citizens should have confidence in their resulting policy opinion. Additionally, Study 1 demonstrated that clear policy goals help citizens see ballot measures in terms of their political predispositions. Because citizens have strong attitudes about those predispositions, clear policy goals should also result in strong issue attitudes (Sears et al. 1980).

- ***H5:*** *Voters' attitudes about a ballot measure should strengthen as the measure's goals are perceived to be clearer.*

Study 2 tests both mechanisms through an original survey with an embedded experiment. In the experiment, I manipulate the clarity of ballot measures' goals, which allows me to isolate the effect of goal clarity more directly than in Study 1. Further, Study 2 builds on Study 1 by providing measures of core theoretical concepts that were not available in the first study (attitude strength, perceived complexity) and more valid measures of some variables

that were available (perceived partisanship of each measure).

The survey was administered to a convenience sample of 371 undergraduate students across four sections of an Introduction to American Politics class at a large public university, yielding 367 respondents who completed the survey. Respondents were first shown the following preamble: "On the following four pages, you will be shown four different ballot proposals that would make changes in policy. For each ballot proposal, you will be asked some questions about the goals of the proposal, the policy changes it might make, the problems it is designed to address, and a handful of additional questions." Each respondent was shown four different ballot measures. For each one, they were informed that it might appear on the ballot in 2018 in the state in which the university is located before reading the text of the measure. After reading the text of each measure, respondents answered a series of questions about them, which are discussed in greater detail below.

The four proposals were adapted from the ballot measures appearing in the 2012 ANES Direct Democracy study. Small adjustments were made to each measure so that it referred to the state in which the university is located instead of whichever state it was drawn from, and so that it referred to 2018 and not 2012. Two of the measures that each respondent read were drawn randomly from a list of 14, which were themselves selected from the 81 included on the ANES. The 14 were chosen specifically to generate variation in goal clarity. Accordingly, seven of the 14 measures have relatively clear goals while the remaining seven have relatively unclear goals. The full list of 14 measures is contained in Appendix 2B.

The other two measures that respondents saw were also drawn from the ANES study and were subject to experimental manipulation. I chose two measures for the experiment that had relatively unclear goals, and in the control condition, respondents saw them as they appeared on the ANES (again, with small adjustments to make them about the university's state instead of the original state they were drawn from). In the treatment condition, I added a short phrase near the front of each proposal that clarified the policy goal being pursued by the proposal.

The control and treatment conditions for the first proposal are as follows:

> Control: Proposal 1 would phase down the debt limit percentage in three steps from nine to eight percent and modify the calculation date, calculation period, and the term general state revenues.
>
> Treatment: Proposal 1 would **reduce government spending by** phasing down the debt limit percentage in three steps from nine to eight percent and modifying the calculation date, calculation period, and the term general state revenues.

The two conditions for the second proposal are as follows:

> Control: Proposal 2 would implement certain testing methods for job applicants, restrict the number of finalists for a particular job or position, place limits on the hiring of temporary workers, and require that applicants be residents of the state.
>
> Treatment: Proposal 2 would **spur job growth for state residents by** implementing certain testing methods for job applicants, restricting the number of finalists for a particular job or position, placing limits on the hiring of temporary workers, and requiring that applicants be residents of the state.

Respondents were shown both proposals and in different conditions. If they saw the first proposal in the control condition, they saw the second in the treatment condition, and vice versa.

Dependent Variables

Above I explain that clear policy goals should make ballot measures seem less complex and should provide citizens stronger issue attitudes. These mediating effects help to explain the findings I present Study 1. Study 2's dependent variables reflect these expectations:

Attitude Strength: For each proposal, respondents reported whether they would support or oppose its passage on a 7-point scale. Following this, they were asked three questions about their certainty and confidence regarding that opinion (McGraw, Hasecke & Conger 2003, Tormala & Rucker 2007, Gerber, Huber, Doherty & Dowling 2011). Each item is measured on a 5-point scale, and higher values indicate greater certainty and confidence. The attitude strength variable is each respondent's factor score derived from their answers to the three items:[10]

[10]The Cronbach's alpha for the three items is 0.82.

- How certain are you of your attitude on the ballot proposal that you just provided?
- How certain are you that your attitude on this ballot proposal is the right attitude to have?
- How confident are you that you have the knowledge and expertise to evaluate this ballot proposal?

Perceived Complexity: Perceived complexity is measured as responses on a 5-point scale to the following question: "How complex do you find the policy issue in this ballot proposal to be?" Higher values indicate greater perceived complexity.

Independent Variables

Study 2 relies on random assignment to precisely measure the effects of clearer goals in the text of ballot measures. It also relies on perceived goal clarity as a predictor of the two dependent variables discussed immediately above:

Condition: For the experimental portion of the analyses below, experimental condition is measured as a dichotomous variable indicating whether the proposal was seen in the control condition (0) or the goal clarity treatment condition (1).

Perceived Goal Clarity: For the observational portion of the analyses below, the main independent variable is how clearly respondents perceive the policy goals of the proposal to be. On a 5-point scale, respondents answered the following question for each proposal they read: "How clear is it to you what the policy goals of this ballot proposal are?" Higher values indicate greater clarity.

Perceived Problem Clarity: To ensure that respondents were specifically considering goal clarity in the question above, and not other forms of clarity, they were asked to report how clearly they perceived the problems being addressed by the proposal on the same 5-point scale: "How clear is it to you what problems this ballot proposal is trying to address?" This question appeared before the perceived goal clarity question for each proposal.

Perceived Policy Change Clarity: As an additional assurance that respondents considered goal clarity in the question above, they were also asked to report how clearly they

perceived the policy changes involved with the proposal: "How clear is it to you what changes in policy will occur if this ballot proposal is passed?" They were asked this question after the perceived goal clarity question. Policy change clarity and problem clarity are both included as controls in the models below to test whether perceived goal clarity has the predicted effects over and above these other two forms of clarity.

Sophistication: Political sophistication is a factor score derived from responses to 11 political interest questions and 6 political knowledge questions.[11]

Study 2: Results

H4 and H5 predict that as the policy goals of reform are perceived to be clearer, voters will gain stronger attitudes about reform and will perceive reform to be less complex, respectively. Table 2.4 contains evidence in support of both hypotheses. Both models pool the four ballot proposals that each respondent read during the course of the study, and I include random effects for respondents and dummy variables for the 16 proposals that they could have been shown. The dependent variable in the model on the left is the attitude strength scale constructed from the three items measuring certainty. The dependent variable in the model on the right is the five-item perception of complexity scale. Both models are OLS, and all variables have been scaled 0-1.

In both models, the coefficient on perceived goal clarity is statistically significant and in the expected direction: perceiving the goals of reform to be clear increases attitude strength and decreases how complex the reform seems. Along with a control for political sophistication, both models also include measures of how clearly the underlying problem being

[11]The interest questions asked respondents how closely they follow politics, how important the results of the 2018 election are to them, whether they participated in a political cause or campaign in the previous 12 months, and how often they engaged in the following activities: discussed politics with family, discussed politics with friends, discussed politics via social media, clicked on a Facebook link about politics, clicked on a Twitter link about politics, watched a television program about politics, listened to a radio program about politics, and visited a news website to read about politics. The knowledge questions asked respondents to identify: the current U.S. Secretary of Energy, a constitutional power of the U.S. Vice President, the proportion of members required for the U.S. Senate and House to override a presidential veto, the job or office held by John Kelly (as of September 2017), the correct description of Medicare, and the correct description of the Byrd Rule. The Cronbach's alpha of these 11 items is 0.80.

Table 2.4: Perceived goal clarity makes issue attitudes stronger and makes reform seem less complex.

	(1) Attitude Strength	(2) Perceived Complexity
Perceived Goal Clarity	0.12* (0.02)	-0.08* (0.03)
Perceived Problem Clarity	0.10* (0.02)	0.01 (0.03)
Perceived Policy Change Clarity	0.14* (0.02)	-0.15* (0.03)
Sophistication	0.13* (0.03)	0.06 (0.04)
Constant	0.14* (0.03)	0.50* (0.03)
Proposal Dummy Variables	Yes	Yes
Within R^2	0.37	0.24
Between R^2	0.25	0.05
Overall R^2	0.32	0.17
Observations	1,429	1,434

Standard errors in parentheses

* $p < 0.05$ (two-tailed)

Both models are OLS with random effects for individual respondents. All variables are coded 0-1. On the left, the dependent variable is the attitude strength scale constructed from the three attitude certainty items. On the right, the dependent variable is the five-item perceived complexity scale.

addressed by the reform is perceived and the perceived clarity of the policy changes that would occur. The inclusion of these controls suggests that goal clarity, as expected, operates independently of those other forms of clarity.[12] Substantively, moving from the lowest to the highest levels of perceived goal clarity pushes respondents 12% of the way up the attitude strength scale and 8% of the way down the perceived complexity scale.

Turning from the observational to the experimental analyses, I first test whether the goal clarity manipulation worked as intended. The expectation is that compared to respondents in the control condition, respondents in the treatment condition should perceive the goals of reform to be clearer. They should also perceive the underlying problem being addressed by the proposal to be clearer because of the close association between goals and problems. There should be *no* difference in how clear the policy changes of the proposal seem, since that is left unaffected by the experimental manipulation. Finally, respondents in the treatment condition should perceive reform to be less complex compared to respondents in the control

[12] I include a correlation matrix and VIFs of the three perceived clarity measures in Appendix 2A to demonstrate their independence. The correlations are moderately positive and the VIF scores are well below 10.

condition.

Table 2.5 tests each of these expectations through a series of OLS models featuring just a single independent variable: a dummy variable set to 1 for the treatment condition and to 0 for the control condition. As expected, the coefficient on the dummy variable is positive and significant in the first two models, suggesting that the manipulation made the policy goals and the underlying problem in the proposals seem clearer. Also as expected, the coefficient on the dummy variable in the third model is zero. This means that the manipulation had no effect on how clearly the policy changes were perceived. Finally, the coefficient on the treatment dummy is positive and not significant in the fourth model. This fails to support my expectation, since it suggests that the manipulation had no effect on how complex the ballot proposal seemed to respondents.[13]

Table 2.5: Experimental manipulation worked as intended for three out of the four dependent variables: goal clarity, problem clarity, and policy change clarity, but not perceived complexity.

	(1) Goal Clarity	(2) Problem Clarity	(3) Policy Change Clarity	(4) Perceived Complexity
Treatment Condition	0.08* (0.02)	0.10* (0.02)	0.00 (0.02)	0.02 (0.02)
Constant	0.51* (0.02)	0.45* (0.02)	0.49* (0.02)	0.50* (0.02)
Within R^2	0.05	0.07	0.00	0.00
Between R^2	0.00	0.00	0.00	0.00
Overall R^2	0.02	0.04	0.00	0.00
Observations	733	731	734	733

Standard errors in parentheses

* $p < 0.05$ (two-tailed)

All models are OLS with random effects for individual respondents. Each of the dependent variables is coded 0-1. From left to right, the dependent variables are perceived goal clarity, perceived problem clarity, perceived policy change clarity, and perceived complexity.

I employ this same model to test whether the goal clarity treatment condition made respondents' attitudes about reform stronger. Table 2.6 contains the results, and they provide mixed support for my expectations. When the two ballot proposals that were subject to experimental manipulation are pooled together, there is no effect of the treatment condition on attitude strength (p=.18). When separated by proposal, there is the expected effect only

[13]The treatment effect on perceived goal clarity and perceived problem clarity is robust across both topics. Table 2.13 in Appendix 2A contains regression results where the debt limit and job creation topics are modeled separately.

for the debt limit ballot proposal: respondents in the goal clarity treatment condition reported stronger issue attitudes than respondents in the control condition (p=.07). There is no equivalent effect for the job creation ballot proposal. Substantively, the effect on the debt limit proposal is modest: moving from the control to the goal clarity treatment condition moves respondents 4% of the way up the attitude strength scale.[14]

Table 2.6: Goal clarity treatment inconsistently makes attitudes stronger.

	(1) Attitude Strength	(2) Attitude Strength	(3) Attitude Strength
Treatment Condition	0.02 (0.01)	0.04 (0.02)	-0.01 (0.02)
Constant	0.43* (0.01)	0.42* (0.01)	0.44* (0.01)
Respondent Random Effects	Yes	No	No
Topic	Both (pooled)	Debt Limit	Job Creation
Adjusted R^2	0.00	0.01	0.00
Observations	731	366	365

Standard errors in parentheses

* $p < 0.05$ (two-tailed)

All models are OLS. The dependent variable is coded 0-1. The first model pools both of the ballot proposals that were subject to experimental manipulation with random effects for individual respondents. The second and third models separate the debt limit proposal from the job creation proposal. The value reported for Adjusted R^2 in the first model is the within-subjects R^2.

Discussion and Conclusion

Clearly conveyed policy goals facilitate voters' engagement in direct democracy. Clear goals make voters' attitudes about ballot measures stronger, which leads citizens to vote on measures instead of abstaining. Clear goals also increase support for reform when the policy goal is agreeable across political divisions. When the policy goals are ideological, they help voters align their opinions on the ballot measure with their political predispositions.

My findings also suggest that clear policy goals make otherwise complex ballot measures more understandable. Previous research has demonstrated that group cues (and particularly partisan cues) help citizens determine their issue positions (Lenz 2012), often by clarifying

[14]I investigate the reason for the contrasting effects between the debt limit and job creation proposal in models and figures in Appendix 2A. Figures 2.3 and 2.4 and Tables 2.14 and 2.15 suggest that the goal clarity treatment condition made respondents more likely to see the debt limit proposal as partisan and Republican, as expected. By contrast, the treatment made respondents *less* likely to see the jobs creation proposal as partisan. One reason is that the language of restrictions and priorities for in-state residents might have made respondents think that it was a Republican proposal in the control condition, but the addition of the jobs creation goal in the treatment condition provided a countervailing signal. That would explain the results in the right-hand figure in Figure 2.4, in which the treatment condition made respondents less likely to see the proposal as endorsed by Republicans, and this effect was more pronounced for sophisticates than non-sophisticates.

which positions align with people's deeper political commitments (Lupia 1994). Clear policy goals serve a similar function, since they help citizens connect specific policy decisions to broader political conflicts. They also provide citizens confidence in their resulting opinions, which gives them the motivation to vote on the measure. Thus, clearly conveyed policy goals are central to direct democracy efforts and serve as a key piece of information that can buoy or sink a measure's passage.

My theory pushes our understanding of complexity and political behavior beyond typologies of the issues themselves, such as classifying issues as easy or hard (Carmines & Stimson 1980). Hard issues may be seen as more complex and invite less participation than easy issues. All the same, hard and easy issues themselves will be seen as more or less complex depending on how the issue is presented. Researchers should give more attention to how issues are conveyed when explaining why citizens become politically engaged or disengaged, since both issue presentation and issue characteristics matter for issue participation.

This study has focused on goal clarity in the specific context of direct democracy. Ballot measures provide an optimal setting to test a theory of information and political behavior. When citizens vote for candidates, their issue positions compete with other factors like the candidate's perceived competence and personality to guide their vote choice. By contrast, citizens' decisions about direct democracy legislation more fully reflect their considered issue positions. Further, we know the precise language of the measure that is presented to voters on the ballot, so findings about ballot information's causal effects have a high degree of internal validity relative to the typical media priming study, which assumes that every voter in a media market is being exposed to the same messages. Studying real ballot measures also provides greater external validity than most survey experimental framing studies, since we have more confidence that results reflect real voter behavior.

All the same, my findings about the behavioral effects of clear policy goals can extend further than whether and how citizens vote on ballot measures. Discussion of goals feature prominently in policy reform debates. Political elites in favor of reform focus centrally on

goals when debating issue reform, particularly when the goals of reform are generally agreeable across political lines (e.g. lowering heath care premiums, protecting natural resources). Indeed, their focus on goals can crowd out discussion of other, complicating aspects of the policy change (Tyner 2016). Elites opposing reform want to focus on everything *except* its goals, so that voters think foremost about the costs and unintended consequences of reform and not its agreeable aspects.

The results I present above suggest that their strategies are warranted. Focusing narrowly on the goals of reform simplifies the decision that citizens have to make about a policy reform proposal. Rather than weighing all the costs and benefits that reform presents, citizens need only consider whether they support or oppose the underlying policy goal when that becomes the dominant idea in a debate. Because approving or disapproving of a policy goal is a relatively easy decision for citizens to make, they can use that heuristic to develop a position and gain confidence in it, both of which are requisite to taking political action on the issue (Peterson 2005, Tormala & Petty 2004). By contrast, when complicating considerations like costs, unintended consequences, and procedural concerns occupy a larger share of an issue debate relative to policy goals, citizens should find it more difficult to maintain strong issue attitudes. We should thus expect greater citizen participation to follow from issue debates that feature a greater focus on policy goals.

To mobilize support, political elites need to focus public attention on the aspects of an issue that cut through citizens' disinterest in political affairs. One way to accomplish this is by keeping the goals of issue reform front and center, minimizing the time that voters spend thinking about other aspects of issue reform. Focusing on policy goals reminds people why they should care about reform in the first place – namely, because the world can be made better through the political system. Until voters believe that this is possible, they will stay on the sidelines of issue reform efforts.

REFERENCES

Boudreau, Cheryl & Scott A MacKenzie. 2014. "Informing the electorate? How party cues and policy information affect public opinion about initiatives." *American Journal of Political Science* 58(1):48–62.

Burnett, Craig M & Vladimir Kogan. 2015. "When does ballot language influence voter choices? Evidence from a survey experiment." *Political Communication* 32(1):109–126.

Carmines, Edward G & James A Stimson. 1980. "The two faces of issue voting." *American Political Science Review* 74(1):78–91.

Eckles, David L, Cindy D Kam, Cherie L Maestas & Brian F Schaffner. 2014. "Risk attitudes and the incumbency advantage." *Political Behavior* 36(4):731–749.

Egan, Patrick J. 2013. *Partisan priorities: How issue ownership drives and distorts American politics*. Cambridge University Press.

Eidelman, Scott & Christian S Crandall. 2012. "Bias in favor of the status quo." *Social and Personality Psychology Compass* 6(3):270–281.

Ellis, Christopher & James A Stimson. 2012. *Ideology in America*. Cambridge University Press.

Enelow, James M & Melvin J Hinich. 1984. *The spatial theory of voting: An introduction*. CUP Archive.

Fernandez, Raquel & Dani Rodrik. 1991. "Resistance to reform: Status quo bias in the presence of individual-specific uncertainty." *The American Economic Review* 81(5):1146–1155.

Fiorina, Morris P. 1981. "Retrospective voting in American national elections.".

Gerber, Alan S, Gregory A Huber, David Doherty & Conor M Dowling. 2011. "Citizens' policy confidence and electoral punishment: A neglected dimension of electoral accountability." *The Journal of Politics* 73(4):1206–1224.

Hastings, Jeff & Damon Cann. 2014. "Ballot titles and voter decision making on ballot questions." *State and Local Government Review* 46(2):118–127.

Hessami, Zohal. 2016. "How do voters react to complex choices in a direct democracy? Evidence from Switzerland." *Kyklos* 69(2):263–293.

Kahneman, Daniel, Jack L Knetsch & Richard H Thaler. 1991. "Anomalies: The endowment effect, loss aversion, and status quo bias." *The Journal of Economic Perspectives* 5(1):193–206.

Kam, Cindy D & Elizabeth N Simas. 2012. "Risk attitudes, candidate characteristics, and vote choice." *Public Opinion Quarterly* 76(4):747–760.

Lavine, Howard G, Christopher D Johnston & Marco R Steenbergen. 2012. *The ambivalent partisan: How critical loyalty promotes democracy*. Oxford University Press.

Lenz, Gabriel S. 2012. *Follow the leader?: how voters respond to politicians' policies and performance*. University of Chicago Press.

Lupia, Arthur. 1994. "Shortcuts versus encyclopedias: Information and voting behavior in California insurance reform elections." *American Political Science Review* 88(1):63–76.

MacKuen, Michael, George E Marcus, W Russell Neuman & Luke Keele. 2007. "The third way: The theory of affective intelligence and American democracy." *The affect effect: Dynamics of emotion in political thinking and behavior* pp. 124–151.

McGraw, Kathleen M, Edward Hasecke & Kimberly Conger. 2003. "Ambivalence, uncertainty, and processes of candidate evaluation." *Political Psychology* 24(3):421–448.

Milita, Kerri. 2015. "Election laws and agenda setting: How election law restrictiveness shapes the complexity of state ballot measures." *State Politics & Policy Quarterly* 15(2):119–146.

Milita, Kerri. 2017. "Beyond roll-off: individual-level abstention on ballot measure voting." *Journal of Elections, Public Opinion and Parties* pp. 1–18.

Nicholson, Stephen P. 2003. "The political environment and ballot proposition awareness." *American Journal of Political Science* 47(3):403–410.

Peterson, David AM. 2005. "Heterogeneity and certainty in candidate evaluations." *Political Behavior* 27(1):1–24.

Reilly, Shauna & Sean Richey. 2011. "Ballot question readability and roll-off: The impact of language complexity." *Political Research Quarterly* 64(1):59–67.

Sears, David O, Richard R Lau, Tom R Tyler & Harris M Allen. 1980. "Self-interest vs. symbolic politics in policy attitudes and presidential voting." *American Political Science Review* 74(3):670–684.

Selb, Peter. 2008. "Supersized votes: ballot length, uncertainty, and choice in direct legislation elections." *Public Choice* 135(3-4):319–336.

Simon, Herbert A. 1985. "Human nature in politics: The dialogue of psychology with political science." *American Political Science Review* 79(02):293–304.

Stone, Deborah. 2012. *Policy Paradox: The Art of Political Decision Making*. New York: WW Norton.

Tormala, Zakary L & Derek D Rucker. 2007. "Attitude certainty: A review of past findings and emerging perspectives." *Social and Personality Psychology Compass* 1(1):469–492.

Tormala, Zakary L & Richard E Petty. 2004. "Resistance to persuasion and attitude certainty: The moderating role of elaboration." *Personality and Social Psychology Bulletin* 30(11):1446–1457.

Tyner, Andrew. 2016. "Creating complexity: Opinion leaders' efforts to activate status quo bias." Presented at the Midwest Political Science Association meeting in Chicago, IL.

Zaller, John & Stanley Feldman. 1992. "A simple theory of the survey response: Answering questions versus revealing preferences." *American Journal of Political Science* 36(3):579–616.

Zink, James R & Christopher T Dawes. 2015. "The Dead Hand of the Past? Toward an Understanding of 'Constitutional Veneration'." *Political Behavior* pp. 1–26.

Complex Political Debates, Attitude Strength, and Political Action

Scholarly consensus holds that citizens are, on the whole, politically disengaged and largely disinterested in public policy matters. Despite this, the mass public *does* become relatively more engaged on some issues some of the time by sustaining attention to an issue and communicating their preferences to policymakers. Their uneven interest and attention raises an important question: what determines whether citizens become politically involved in a specific issue?

An issue's perceived complexity should shape whether citizens participate politically in efforts to reform it. Complexity undermines citizens' political engagement by decreasing citizens' certainty about their issue attitudes. Decreased certainty heightens citizens' risk aversion and status quo bias, which, in turn, cause political de-mobilization. Citizens thus become less willing to take action on beliefs that they do not feel conviction about. When status quo problems and their solutions are seen as too complex to meddle with, citizens lose both the desire for political reform and the willingness to take action to achieve it. In this way, the complexity of issue debates provides a causal mechanism that helps explain the widely held view of a status quo bias in representative democracy.

This theory suggests that elites can influence citizens' involvement by the complexity with which they discuss political issues. While problems can be widely recognized and agreed upon – poverty, crime, international conflict, and a lagging economy, for example – diagnosing the root causes, identifying the responsible actors, and proposing the correct solutions opens up a world of disagreement and debate in which the right lever to pull to solve the problem is rarely obvious. This opens the door for elites to undermine citizens' confidence in reform along any of these dimensions. When citizens lose confidence in the

solutions presented to them, they also lose faith that anything can or should be done to address the problem.

In this paper, I establish a connection between the complexity of an issue debate and citizens' mobilization by focusing on the three stages of the causal process: the effect of complexity on the consistency of citizens' issue considerations, the effect of those considerations on attitude strength, and the effect of attitude strength on political action. Specifically, I develop and test the hypothesis that, as a general matter, complex presentations of issues should weaken attitudes because they prompt less consistent ideas about the issue. Weaker attitudes should predict decreased willingness to take political action. However, a small but important segment of the population might have a different response to complexity. For people at the highest levels of sophistication, complexity might strengthen attitudes, since they can respond to the increased volume of information in a complex debate by counterarguing incongruent information and reinforcing their existing attitudes.

I find support my expectations in two original survey experiments. Since attitude strength is a prerequisite to taking political action on an issue, understanding how political communication influences attitude strength helps us understand political behavior (Peterson 2005). More broadly, identifying the effect that complexity in the information environment has on political mobilization helps us understand the circumstances under which political elites might strategically use complex rhetoric for political gain.

Complexity of Issue Presentations

On any given political issue, the underlying problem that currently exists and the goals of political reform may be well understood. Even so, the effectiveness of proposed reforms, the many intended and unintended consequences of changing the system, the severity of the underlying problem, and the procedural and policy precedents that might be set by adopting the proposed solution can remain matters of dispute. The inability to predict all of the many consequences of changing the status quo raises uncertainty for citizens, which, as explained

below, leads them to disengage from political reform efforts.

In line with this, a complex presentation of an issue is distinguished from a simple presentation by the introduction of a wider range of distinct arguments. Where a simple presentation might raise one or two main arguments for being for or against a proposal, a complex presentation will bring up a greater number of arguments and spread attention across many different dimensions of the issue. Accordingly, increasing the complexity of an issue is defined here as increasing the dimensionality of the issue debate (Jones, Talbert & Potoski 2003).

Complexity, Issue Considerations, and Attitude Strength

Complexity can decrease attitude strength by simultaneously supplying positive and negative ideas about an issue. There are three reasons we should expect this relationship. First, the literature on objective ambivalence has found that holding positive and negative ideas about an object at the same time can diminish attitude certainty (McGraw, Hasecke & Conger 2003). When new information consistently points in the same evaluative direction (either positive or negative), uncertainty decreases. But when new information points in different directions (positive *and* negative), uncertainty increases (Petty & Krosnick 2014).

The competing ideas communicated in complex issue presentations should prompt objective ambivalence by providing citizens conflicting ideas about the issue (Zaller & Feldman 1992). Weighing many distinct considerations about an attitude object makes it difficult to evaluate the object wholly positively or negatively. The resulting judgments, in turn, should be held with less confidence (Barker & Hansen 2005).

Second, the high volume of information conveyed by complex issue presentations should make it difficult to counterargue any conflicting considerations. Whether citizens emerge from an issue debate with consistent or inconsistent considerations depends on their reactions to the arguments they are exposed to. Having wholly positive reactions to one side's arguments and negative reactions to the other should leave citizens with consistent considerations and thus increase citizens' attitude certainty. Conversely, having mixed reactions

to a debate's arguments – either by thinking both side's arguments are persuasive or unpersuasive – should diminish certainty.

Complex rhetoric that presents a wide range of arguments makes it difficult to maintain consistent reactions. Each new argument presents an opportunity for inconsistency – either by finding the side that one normally favors unpersuasive or by finding the other side unusually persuasive. If a citizen is fairly evaluating incoming arguments, the probability of consistently favoring one side's arguments and opposing those of the other side should decrease with each additional argument added to the debate. An individual might be able to successfully counterargue a small number of conflicting ideas, but the high volume presented in complex issue presentations should make that task difficult.

Finally, beyond its effect on conflicting considerations and citizens' capacity to counterargue them, complex rhetoric can decrease attitude certainty in a third way. Rather than considering all of the positive and negative aspects of an object introduced by new information, some citizens might respond by giving up on the judgment task and recognizing the limitations of their own understanding of the political issue. The Dunning-Kruger effect in social psychology refers to a similar process, wherein people's confidence in their own abilities at a given task decreases as their abilities improve (Kruger & Dunning 1999). The explanation for this phenomenon is that increasing someone's competency at a task increases their ability to recognize the difference between a good performance and a bad performance. This allows people to more accurately discern their own capacities and limitations.

A related mechanism should be at play in political judgments. Individuals should express more confidence in their attitudes when they are unaware of the complexity of whatever it is they are expressing an attitude about. It is only when they learn (or are reminded) of this complexity that they recognize the breadth of what they do not know. Correspondingly, individuals should express less confidence in their resulting opinions.

Complexity should thus lower citizens' confidence in their political judgments. This should manifest as both lower self-reported certainty as well as less extreme issue positions.

Attitude extremity and certainty are two distinct measures of attitude strength (Visser, Krosnick & Simmons 2003), but they should be related to the extent that feeling a lack of confidence about one's issue attitude should turn people away from expressing an extreme position. Complex presentations of issues should therefore also decrease attitude extremity, in addition to decreasing attitude certainty as discussed above. Given their close association, I analyze the two concepts through a single scale below.[1]

The Conditional Effect of Complexity

Not all citizens attempt to evaluate incoming ideas fairly (Taber & Lodge 2006). Many citizens are motivated to maintain their existing beliefs, and thus they respond to new information by weighing agreeable arguments more favorably than disagreeable ones. The capacity and motivation to engage in this kind of motivated reasoning is unevenly distributed across the population. Citizens with greater political interest and knowledge should be better able to recognize arguments that conflict with their existing issue attitudes and more motivated to counterargue them. Thus for citizens who are motivated to maintain their belief systems, the volume of incoming political arguments might not matter – they should successfully counter incongruent ideas and incorporate the ideas that conform to their existing opinions.

Accordingly, the effects of complexity should depend on citizens' capacity and motivation to counterargue incoming information. Based on the theory outlined in the sections above, those who cannot counterargue should develop weaker attitudes. For those who can counterargue incongruent arguments, complex rhetoric should *strengthen* their issue attitudes.

Individuals' attitudes strengthen when they perceive that they have resisted strong counterarguments (Tormala & Rucker 2007). In the context of attitude certainty, research building on the elaboration likelihood model (ELM) has found that resisting counterarguments leads to greater attitude certainty when elaboration is high – that is, when a great deal of active thought has gone into resisting the counterarguments (Tormala & Petty 2004). Further,

[1] I report measures of association below demonstrating that the two concepts form a reliable scale.

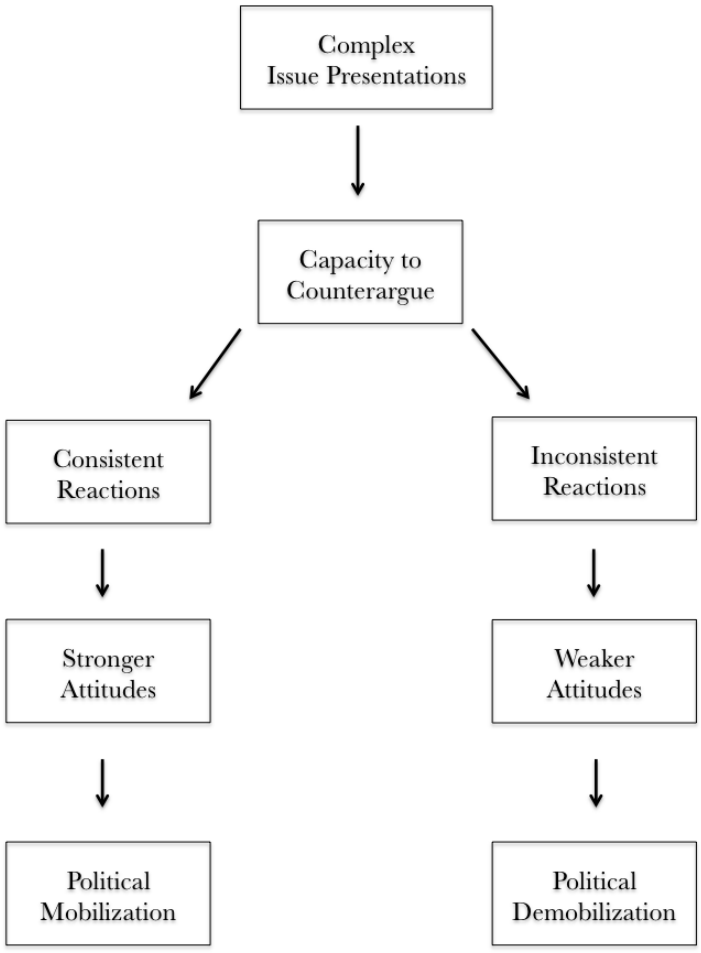
previous work has demonstrated a "boomerang effect," whereby exposure to countervailing information leads attitudes in the opposite direction, especially among citizens who have strong prior attitudes and are able and motivated to protect them (Levendusky 2013, Taber & Lodge 2006). All of this suggests that citizens who resist incoming incongruent arguments should gain stronger attitudes following exposure to complex rhetoric.

Attitude Strength and Political Participation

Previous work in both political science (Peterson 2005) and psychology (Visser, Krosnick & Simmons 2003, Tormala & Petty 2004) suggests a link among attitude certainty, attitude extremity, and attitude-behavior consistency. As attitudes become more certain and more extreme, individuals become more likely to act on them. Political action requires investments of both time and material resources. People should only be willing to expend these scarce resources when their confidence that they have the right opinion on the issue is high. Therefore, I expect weaker issue attitudes should predict less willingness to take political action on the issue.

Figure 3.1 summarizes the theory I present above. Complex issue presentations introduce a wide range of arguments that raise positive and negative aspects of reform proposals. Whether the arguments leave citizens with consistent or inconsistent issue considerations depends on citizens' motivation and capacity to counterargue incongruent ideas. Both of these characteristics vary systematically with political sophistication. When citizens are left with conflicting issue considerations, their issue attitudes should weaken. By contrast, when citizens resist incongruent ideas, their issue attitudes should strengthen. Attitude strength, in turn, affects willingness to take action on the issue. In this way, complex issue presentations stratify the public – those who are equipped to process complex rhetoric should become more likely to participate, and those who are not should disengage from the political issue.

Figure 3.1: Theory of Complex Issue Presentations



Hypotheses

Each step of the causal process I outline above leads to a separate hypothesis:

- H1: As political sophistication increases, citizens should be better able to counterargue incongruent political information.
- H2: Among individuals unable to counterargue incongruent information, complex issue debates should prompt inconsistent reactions.
- H3: Inconsistent reactions to an issue debate should weaken citizens' attitudes.
- H4: Among individuals unable to counterargue incongruent information, complexity should weaken attitudes. Among those are able to counterargue, complexity will strengthen attitudes.
- H5: Weaker attitudes should make citizens less willing to take action on an issue.

Study 1: Design

I test these hypotheses with two original survey experiments. Each exposes respondents to hypothetical issue reforms and arguments made in support or opposition. In the complex debate condition, respondents are supplied a greater number of randomly drawn arguments than respondents in the simple debate condition. By randomizing the specific arguments that each respondent receives about a reform proposal, we can be more confident that any consequences arise from the volume and not the specific content of information.

The first survey was administered to a convenience sample of 350 undergraduate students in an Introduction to American Politics class, yielding 301 respondents. Each respondent received two separate issue presentations, each of which represented a different, randomly assigned experimental condition. In the complex condition, respondents were provided with eight arguments in total about the reform proposal – four arguments that bolster the supporters' position and four that bolster the opponents' position. In the simple condition, respondents were provided with two arguments in total, one that should support the supporters' position and one that should support the opponents' position. Because the central purpose of this study is to test the effects of complex versus simple issue presentations, the

randomization was skewed so that 40% of the issue presentations were in the complex condition, 40% were in the simple condition, and 20% were in a condition with no arguments. Each respondent was randomly assigned to two of the three conditions through the course of the survey.

The two issue reforms were a proposal to raise the minimum wage in an unnamed nearby state to $12.00 per hour and a proposal to grant federal authorities greater access to citizens' cell phone data in order to combat domestic terrorism. These reform proposals represent traditional concerns of the left and right, helping to ensure that the results are not particular to liberal or conservative proposals. Both issues are also familiar enough to be of interest to respondents while not being so salient or polarized that variation in certainty becomes difficult to induce (as might be the case with an issue like gun control).

In each block of questions, respondents were first given a brief summary of the proposed bill. Following this, they were informed that: "On the following pages, you will read arguments that were made in support or opposition to this bill. For each argument, please indicate whether or you think the argument was made by the bill's supporters or the bill's opponents and rate how persuasive you think the argument is." Respondents were then shown unique one- or two-sentence arguments and asked to categorize them as supporter or opponent arguments.[2] The order and content of arguments is fully randomized, and each argument is drawn from a list of 8 supporter and 8 opponent arguments that were tailored to the specific issue. In the simple condition, one argument was pulled from the supporter list and one from the opponent list. In the complex condition, four arguments were pulled from the supporter list and four from the opponent list. Respondents in the no argument condition proceeded to the issue opinion questions without any intervening arguments. The full lists of possible supporter and opponent arguments are found in Appendix 3A.

Following the presentation and categorization of arguments, respondents were asked to

[2]The purpose of this exercise was to induce respondents' focus on the arguments, though I explain below that their answers are also used to measure a moderator in my theory.

rate their level of support or opposition to the bill on a 7-point scale. This 7-point scale was folded to produce a 4-point opinion extremity scale for the analyses below. Respondents were then asked to provide their level of certainty about their opinion on the bill on a 5-point unipolar scale from 'extremely certain' to 'not at all certain.' As a second measure of certainty, respondents were asked, "Do you feel you know enough about the issue to make an informed decision about it?" Finally, issue importance was assessed by asking respondents how important the underlying political issue is on a 5-point scale.

Political action was measured with three questions assessing respondents' willingness to get involved. Respondents were asked how likely they would be to donate money to an organization that shared their position on the bill, how likely they would be to volunteer for an organization that shared their position on the bill, and how likely they would be to sign a petition declaring their position on the bill.

The two blocks of issue questions were preceded by a block of questions measuring political sophistication and were followed for each respondent with a block of questions measuring demographic characteristics and identifications, including race, gender, party identification, and self-reported ideology.

Study 2: Design

Study 2 builds on Study 1 by parsing out attitude certainty into greater detail and incorporating additional measures of political action. Further, it expands the number of issues on the instrument to four. The additional issues are a proposal to double the number of charter schools in the state in which the survey was administered and a federal proposal to triple the amount of grant funding available for research into wind power. The list of supporter and opponent arguments for the two new issue areas are contained in Appendix 3A.

Study 2 splits one of the measures of attitude certainty from Study 1 (asking respondents to report their level of certainty about their issue opinion) into two separate questions: one measuring how clear respondents' opinion on each bill is in their own minds, and one mea-

suring how certain they are that that opinion is the correct one to have (Petrocelli, Tormala & Rucker 2007). It also adds an additional measure of certainty assessing respondents' confidence that they have the knowledge and expertise to evaluate policy in that specific issue area (Gerber, Huber, Doherty & Dowling 2011).

Finally, Study 2 adds two new measures of political action: a question asking respondents how likely they would be to share their opinion on the bill with interested friends and family, and how support for their representative (state or member of Congress, depending on the issue) would change based on the representative's support or opposition to the bill. The breadth of actions measured in Study 2 should shed additional light on how the complexity of political debate affects citizens' willingness to take action on political issues. Finally, Study 2 improves on Study 1 by including additional, harder questions measuring political sophistication. The measure of political sophistication used in Study 1 is skewed toward higher values on the scale. Additional sophistication questions help address this limitation.

Variables

Dependent Variable

- **Argument Rating Difference (ARD)**: the absolute difference between the average supporters' argument ratings and the average opponents' argument ratings, which is then rescaled from 0-1. Persuasiveness ratings can be rated as 1, 2, or 3. Because there are only two arguments in the simple condition, the variable can take on values of 0, 0.5, and 1. In the complex condition, it can take on values of 0, 0.125, 0.25, 0.375...1. Regardless of condition, higher values of ARD indicate more consistent reactions to the arguments. A score of 0 means the supporters' arguments are considered equally persuasive as the opponents' arguments on average. A score of 1 indicates that one side's arguments are seen as fully persuasive and the other side's as fully unpersuasive. As such, low scores reflect conflicting reactions to a debate, while high scores reflect

reactions that are in harmony.[3]

- **Attitude Strength**: a factor score generated from three items in Study 1 and five items in Study 2. It is scaled 0-1.
  - In Study 1, the items are: a 5-point scale measuring how certain respondents feel about their issue attitude; a dichotomous variable measuring whether or not respondents felt they knew enough about the issue to have an informed opinion about it; and an opinion extremity scale, taking the value of 0 if the respondent neither supported nor opposed the issue reform, up to 3 if the respondent either strongly supported or strongly opposed the issue reform.[4]
  - In Study 2, the items are: a 5-point scale measuring how certain respondents were that they knew their own opinion on the issue; a 5-point scale measuring how certain respondents were that they had the correct opinion on the issue; a dichotomous variable measuring whether or not respondents felt they knew enough about the issue to have an informed opinion about it; a dichotomous variable measuring whether or not the respondent felt confident about evaluating policy in the issue area; and an opinion extremity scale, taking the value of 0 if the respondent neither supported nor opposed the issue reform, up to 3 if the respondent either strongly supported or strongly opposed the issue reform.[5]
- **Political Action**: Political action is measured through multiple items, some of which are included exclusively in Study 1, some exclusively in Study 2, and some in both:
  - *Donate*: a 5-point scale measuring how likely a respondent is to donate to an organization taking action on the issue. It is scaled 0-1.

[3]Though listed as dependent variables, both ARD and attitude strength function as dependent and independent variables in the models below. This reflects the hypotheses above.

[4]Cronbach alpha values for the two attitude strength variables from Study 1 are as follows: minimum wage = 0.69; cell phone data = 0.70.

[5]Cronbach alpha values for the four attitude strength variables from Study 2 are as follows: minimum wage = 0.82; cell phone data = 0.81; charter schools = 0.85; wind power = 0.87.

- *Volunteer*: a 5-point scale measuring how likely a respondent is to volunteer for an organization taking action on the issue. It is scaled 0-1.
- *Petition* (Study 1 Only): a 5-point scale measuring how likely a respondent is to sign a petition declaring their position on the issue. It is scaled 0-1.
- *Share* (Study 2 Only): a 5-point scale measuring how likely a respondent is to share their opinion on this bill with friends or family members who might be interested. It is scaled 0-1.
- *Vote* (Study 2 Only): a 5-point scale measuring how likely a respondent is to vote for/against their respective legislator (either state representative or member of Congress, depending on the issue) based on their support or opposition to the reform bill. It is scaled 0-1.
- *Action*: an average of the particular political action questions each respondent answered (Donate, Volunteer, and Petition for Study 1 participants; Donate, Volunteer, Share, and Vote for Study 2 participants).

Independent Variables

- **Complexity**: a dummy variable indicating whether the respondent was in the complex condition (1) or the simple condition (0). In the complex condition, respondents were exposed to eight arguments about an issue proposal (four supporting reform and four opposing reform), which they were asked to classify as belonging to supporters or opponents and rank on a 1-3 argument strength scale. In the simple condition, respondents were exposed to two arguments (one supporting reform and one opposing reform) and similarly asked to report the argument's strength.
- **Proportion Correctly Identified (PCI)**: the proportion of arguments that respondents correctly identified as belonging to supporters or opponents. Because there are only two arguments in the simple condition, this variable can take on values of 0, 0.5,

or 1 in that condition. There are eight arguments in the complex condition, so the variable can take on values of 0, 0.125, 0.25, ...1. PCI assesses how well respondents figured out which arguments were on each side of the issue. Since respondents need to understand which side is responsible for which arguments in order to counterargue incongruent ideas, PCI is used as a measure of respondents' counterarguing capacity. To be sure, the capacity to counterargue incongruent information is distinct from actually doing so. As such, this measure only approximates respondents' counterarguing activity and does not measure it directly.

- **Sophistication**: a factor score derived from a scale of four political knowledge and four political participation items in Study 1 (Cronbach's alpha = 0.59) and six political knowledge and six political participation items in Study 2 (Cronbach's alpha = 0.79). The Study 1 scores are left-skewed. The scores in Study 2 are more evenly distributed across the possible values. This variable is scaled from 0-1.

- **Folded Party Identification**: a 4-point scale derived from folding a 7-point measure of party identification on its midpoint. Higher values indicate more extreme partisanship. As such, this variable serves as a control for partisan strength.

- **Folded Ideology**: a 4-point scale derived from folding a 7-point measure of ideology on its midpoint. Higher values indicate a more extreme ideology.

Before proceeding, it is worth providing additional validity to the ARD measure discussed earlier in this section. I use ARD to measure how consistently individuals respond to the arguments they read. Higher values indicate greater consistency, and thus fewer conflicting considerations about the issue. If this is the case, we should find that political sophisticates – who are more motivated to maintain consistent considerations – should have higher values on the ARD scale than non-sophisticates. Further, we should find that correctly identifying which side of the debate made which argument should have a stronger effect on ARD as

sophistication increases. This is because it is sophisticates who are motivated to counter incongruent arguments, so they should use their understanding of arguments' sources to more effectively maintain consistent considerations about the issue.

I test these propositions with two models in Table 3.1. The first regresses ARD on sophistication. The second regresses ARD on sophistication, the proportion of correctly identified arguments, and an interaction of the two. The results support expectations and thus provide confidence in the validity of the ARD measure. The first model demonstrates that sophisticates, as expected, maintain more consistent reactions to issue debates. Figure 3.2 plots the marginal effect of correctly identifying the two sides' arguments on ARD across levels of sophistication, using estimates from the second model in Table 3.1. For non-sophisticates, moving from correctly identifying none of the arguments to correctly identifying all of the arguments has no effect on ARD. For sophisticates, by contrast, the effect of correctly identifying all of the arguments versus none of the arguments is a strong increase in ARD.

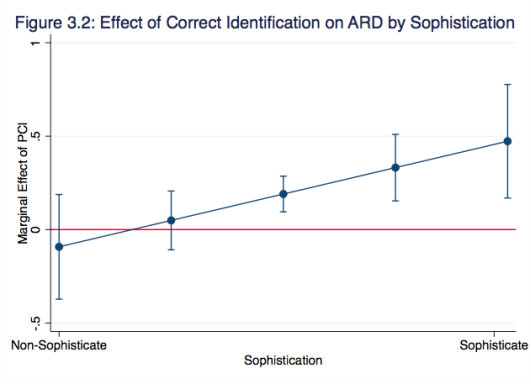
Table 3.1: Political sophisticates maintain more consistent reactions to issue debates.

	(1) ARD	(2) ARD
Sophistication	0.14*** (0.04)	-0.41 (0.26)
Proportion Correctly Identified (PCI)		-0.09 (0.14)
Sophistication × PCI		0.57* (0.28)
Constant	0.23*** (0.02)	0.32* (0.13)
Study	Pooled	Pooled
Within-R^2	·	0.01
Between-R^2	0.03	0.05
Overall-R^2	0.01	0.03
Observations	1,162	1,162

Standard errors in parentheses

$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-tailed)

Both models are OLS with random effects for individual respondents and standard errors clustered by respondent. All independent and dependent variables are coded 0-1.



Marginal effects derived from the second model in Table 3.1.

Results

H1 predicts that the ability to counterargue incongruent political information should increase with political sophistication. As I explain above, I operationalize the ability to counterargue as the proportion of arguments that respondents correctly classify as belonging to supporters or opponents of the reform proposal. I regress this measure on political sophistication. In this model and hereafter, I estimate each model with OLS. I include random effects for respondents and standard errors clustered by respondent to account for any clustering, since each respondent answered questions about more than one reform proposal.

The results in Table 3.2 support expectations. The coefficient on sophistication in the pooled model – which combines respondents from Study 1 and Study 2 – is positive and statistically significant, indicating that relative to non-sophisticates, political sophisticates are better able to classify arguments, and thus better equipped to counter the arguments that are incongruent with their existing beliefs. Substantively, moving from the lowest to the highest level of political sophistication in the pooled model moves respondents 8% of the way up the scale that measures counterarguing capacity. The results are largely consistent when broken out into Study 1 and Study 2.

The expectation in H2 is that respondents who can successfully counterargue incongruent information should have more consistent reactions to complex issue debates. The dependent variable, as explained above, is operationalized by the absolute difference between the av-

Table 3.2: Political sophisticates are better able to counterargue incongruent political information.

	(1) PCI	(2) PCI	(3) PCI
Sophistication	0.08** (0.03)	0.08+ (0.04)	0.11** (0.04)
Constant	0.89*** (0.02)	0.88*** (0.03)	0.88*** (0.02)
Study	Pooled	Study 1	Study 2
Within-R^2	.	.	.
Between-R^2	0.02	0.01	0.03
Overall-R^2	0.01	0.01	0.02
Observations	1,162	468	694

Standard errors in parentheses

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-tailed)

The dependent variable (PCI) is the proportion of arguments that respondents correctly identified. The model is estimated with OLS with random effects for individual respondents and standard errors clustered by respondent. Both the independent and dependent variables are scaled 0-1.

erage persuasiveness assigned to supporters' arguments and opponents' arguments (ARD hereafter). To test H2, I first regress ARD on the experimental condition dummy by itself to determine the average treatment effect. I then regress ARD on the condition dummy, the proportion of correctly identified arguments (PCI), and an interaction between those two predictors. Table 3.3 contains the regression estimates and Figure 3.3 plots the marginal effect of the complex treatment condition across levels of PCI. Table 3.9 in Appendix 3B separates respondents by study, and the results are nearly equivalent.

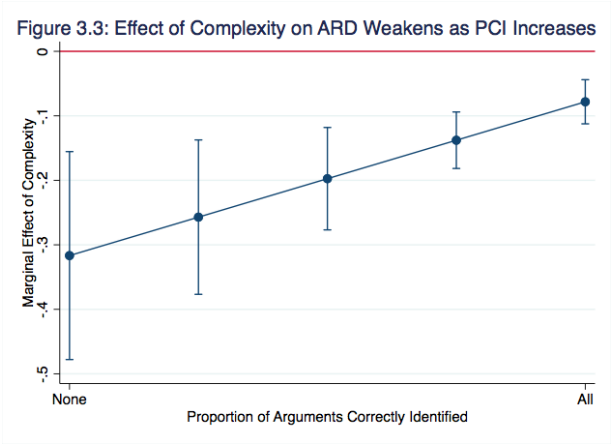
Table 3.3: The effect of complexity on ARD weakens as the proportion of arguments correctly identified (PCI) increases.

	(1) ARD	(2) ARD
Complex Condition	-0.10*** (0.02)	-0.32*** (0.08)
Proportion Correctly Identified (PCI)		0.07 (0.07)
Complexity × PCI		0.24** (0.09)
Constant	0.35*** (0.01)	0.28*** (0.07)
Study	Pooled	Pooled
Within-R^2	0.04	0.06
Between-R^2	0.02	0.03
Overall-R^2	0.03	0.04
Observations	1,182	1,182

Standard errors in parentheses

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-tailed)

Both models are OLS with random effects for individual respondents and standard errors clustered by respondent. All independent and dependent variables are coded 0-1. Equivalent models with respondents separated by study are contained in Table 3.9 in Appendix 3B. The results are largely consistent with what is shown here.



Marginal effects derived from the second model in Table 3.3.

Averaged across all respondents, complexity has a negative and statistically significant effect on ARD. Substantively, moving from the simple to the complex debate condition moves respondents' ARD scores 10% down that scale. The marginal effects in Figure 3.3 provide additional support for my expectations. Across all levels of PCI, the complex treatment condition lowers ARD relative to the simple condition. Further, as expected, the effect of complexity is stronger for respondents who have trouble identifying which side made which argument. This suggests that complexity has a stronger effect on those who cannot resist incoming arguments that counter their existing beliefs.

In H3, I hypothesize that higher levels of ARD – indicating more consistent reactions to a debate's arguments – should strengthen respondents' attitudes. I test this by regressing the attitude strength scale described above on ARD, along with three control variables that should also increase attitude strength: political sophistication, a folded measure of ideology, and a folded measure of party identification.

The results in Table 3.4 provide support for the hypothesis. The coefficient on ARD is positive and statistically significant whether the respondents are pooled together (on the left) or separated by study (Models 2 and 3). Further, the effect of ARD is substantively strong. Moving from the lowest level of ARD to the highest moves respondents 20% of the way up the attitude strength scale in the pooled model. Political sophistication behaves

as expected by increasing attitude strength across all three models. Ideological extremity is positive signed and significant, as expected, in two of the models. Partisan strength, measured by the folded party identification scale, is positively signed as predicted but not significant in two of the three models, and negatively signed and insignificant in the third model. Notably, the correlation between the folded ideology and folded party identification scales is high (0.63).

Table 3.4: Consistent reactions to a debate's arguments strengthen issue attitudes.

	(1) Attitude Strength	(2) Attitude Strength	(3) Attitude Strength
ARD	0.20*** (0.02)	0.16*** (0.03)	0.23*** (0.03)
Sophistication	0.15*** (0.03)	0.17*** (0.04)	0.22*** (0.04)
Folded Ideology	0.07* (0.03)	0.11* (0.04)	0.02 (0.04)
Folded Party ID	0.02 (0.03)	0.05 (0.04)	-0.01 (0.03)
Constant	0.30*** (0.02)	0.24*** (0.03)	0.33*** (0.02)
Study	Pooled	Study 1	Study 2
Within-R^2	0.09	0.04	0.11
Between-R^2	0.22	0.22	0.29
Overall-R^2	0.16	0.17	0.18
Observations	1,132	462	670

Standard errors in parentheses

$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-tailed)

Models are estimated with OLS with random effects for individual respondents and standard errors clustered by respondent. All independent and dependent variables are coded 0-1.

In H4, I test an additional implication from the second hypothesis. If respondents who can counterargue incongruent information maintain more consistent reactions to a complex debate, and if countering incongruent arguments strengthens attitudes in the opposing direction (per my discussion of the boomerang effect above), then the effect of complexity on attitude strength should be conditional. Respondents who can resist incongruent information should gain stronger attitudes results from complexity. Respondents who cannot should develop weaker attitudes. I test this expectation by regressing attitude strength on the experimental condition dummy, the PCI scale, and an interaction between the two.

Table 3.5 contains the estimated results. For a precise test of H4, I plot in Figure 3.4 the marginal effect of complexity on attitude strength across levels of PCI. The estimates

are derived from the pooled model, which is displayed on the left side of Table 3.5. At the lowest level of PCI, when respondents are unable to distinguish supporters' arguments from the arguments made by opponents, the increased volume of information conveyed in a complex debate decreases attitude strength by 0.20 on a 0 to 1 scale. By contrast, when respondents can fully distinguish the two sides' arguments, complexity actually strengthens issue attitudes, albeit modestly. These results are fully in line with H4. Further, the second and third models in Table 3.5 separate respondents by study. The results are consistent across all three models.

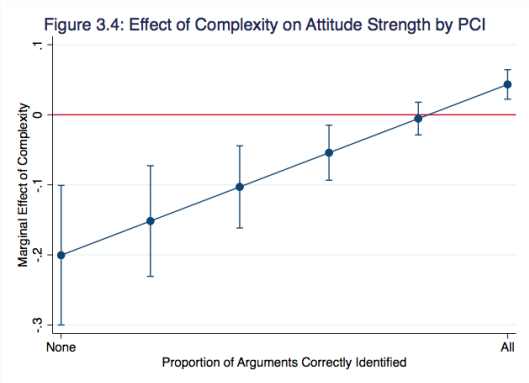
Table 3.5: The ability to counterargue incongruent political information conditions the effect of complexity on attitude strength.

	(1) Attitude Strength	(2) Attitude Strength	(3) Attitude Strength
Complex Condition	-0.20*** (0.05)	-0.34** (0.10)	-0.14* (0.06)
Proportion Correctly Identified (PCI)	0.05 (0.04)	-0.02 (0.06)	0.09^{+} (0.05)
Complex × PCI	0.24*** (0.05)	0.39*** (0.11)	0.18** (0.06)
Constant	0.43*** (0.04)	0.50*** (0.05)	0.40*** (0.05)
Study	Pooled	Study 1	Study 2
Within-R^2	0.02	0.04	0.01
Between-R^2	0.04	0.03	0.09
Overall-R^2	0.03	0.03	0.04
Observations	1,173	469	704

Standard errors in parentheses

$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-tailed)

All models are estimated with OLS with random effects for individual respondents and standard errors clustered by respondent. All independent and dependent variables are coded 0-1.



Marginal effects derived from the first model in Table 3.5.

Finally, H5 predicts that stronger attitudes should make respondents more willing to take action on the issue. I test this by regressing the composite action variable described above

on attitude strength. I also include the same control variables from Table 3.4.

Table 3.6 contains the results, which support expectations. The coefficient on attitude strength is positive and statistically significant across all three models, which feature, respectively, respondents from both studies, respondents from the first study alone, and respondents from the second study alone. This suggests that willingness to act on an issue opinion increases when an individual holds that opinion strongly. The effect is substantively large. Compared to respondents with the weakest issue attitudes, respondents with the strongest attitudes are on average 0.43 points higher on the willingness to act composite scale, which is scaled from 0 to 1. Notably, the three control variables have a comparatively weak influence on political action. All three are positively signed but largely not significant across models. Further, with the exception of sophistication in Study 1, each of the control coefficients is substantively small.[6]

Table 3.6: Stronger attitudes predict greater willingness to participate politically.

	(1) Action	(2) Action	(3) Action
Attitude Strength	0.43*** (0.03)	0.40*** (0.04)	0.43*** (0.04)
Sophistication	0.04 (0.03)	0.18*** (0.05)	0.08 (0.05)
Folded Ideology	0.06^{+} (0.03)	0.05 (0.04)	0.03 (0.04)
Folded Party ID	0.04 (0.03)	0.04 (0.04)	0.03 (0.04)
Constant	0.08*** (0.02)	-0.02 (0.03)	0.13*** (0.03)
Study	Pooled	Study 1	Study 2
Within-R^2	0.26	0.24	0.27
Between-R^2	0.18	0.22	0.22
Overall-R^2	0.21	0.23	0.25
Observations	1,237	570	667

Standard errors in parentheses

$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-tailed)

All models are estimated with OLS with random effects for individual respondents and standard errors clustered by respondent. All independent and dependent variables are coded 0-1.

[6]Table 3.7 in Appendix 3B separates the action variable into its component parts and demonstrates that the effect of attitude strength on willingness to act is positive, significant, and substantively large across four of the five action items.

Discussion and Conclusion

In this paper, I have broadened our understanding of political communication in two ways. First, I have demonstrated that political communication can affect attitude strength, and not simply attitudes themselves. Second, I have demonstrated that the overall structure of a debate can affect the public, over and above the effects of a debate's specific arguments.

I present two findings in this paper. First, complex debates, in which a wide range of arguments is presented to citizens, have nonconstant effects across the public. Citizens who are able and motivated to resist new political information that counters their prior beliefs will maintain consistent considerations about the issue. The consistency of their considerations and the boomerang effect from resisting persuasion will strengthen those citizens' existing attitudes. Citizens who are unable or unwilling to resist new political information will have inconsistent, conflicting considerations about the issue. Conflicting considerations, in turn, weaken their issue attitudes.

Second, I find that attitude strength powerfully predicts political action. Further, in the final model I present in the main text, it outpaces three other control variables that should also predict political action by a wide margin, suggesting that attitude strength might mediate the effect of political participation's other predictors. In this paper, I have focused on one determinant of attitude strength – the complexity of an issue debate – but its importance to explaining political participation suggests further scholarly attention is warranted.

This paper extends the literature on citizens' reactions to political argumentation. Some prior work has found that competing arguments polarize issue attitudes, particularly for citizens who are motivated and able to counterargue discomfiting ideas (Taber & Lodge 2006). Other work has found that competing arguments tend to cancel out, thus leaving citizens' attitudes unchanged (Sniderman & Theriault 2004, Chong & Druckman 2007). In this study, I test a different phenomenon – variation in the volume of arguments and not the balance of arguments – and consequently reach a different conclusion: an increased volume of information can either weaken or strengthen citizens' issue attitudes, depending on citizens'

motivated reasoning capacities. Since attitude strength affects participation, my findings also underscore an additional consequence of elite communication researchers often ignore.

Finally, the existing literature on issue characteristics often assumes that there are particular, stable categorizations of political issues that are inherently different from one another. Some issues – like hard issues in Carmines and Stimson's well known categorization (1980) or consensus issues in Patrick Egan's schema (2013) – are seen as more complex than others. The implication is that complex issues invite less citizen participation than simpler ones.

The expectations from my own theory are more nuanced. Complex and simple presentations of *all* issues should affect the strength with which issue attitudes are held – and thus, the likelihood of taking action on the issue. Even if attitudes on easy issues are stronger than attitudes on hard issues, attitudes on easy issues themselves will be held with greater or less strength depending on the presentation of the issue and the ability of individuals to process incoming political information.

Normatively, my results provide cause for concern. Democratic theorists often look to elites to provide the mass public with tools to more effectively engage the political system. By defining issues in terms that citizens can understand, elite debate is supposed to clarify what is at stake in policy disputes so that citizens can more easily determine their issue positions and advocate for their stances. In this way, elites facilitate broader citizen engagement.

As I write elsewhere, though, policy debates tend to become complex due to the efforts of reform opponents (2016). Further, I establish above that complex debates stratify citizens according to their ability to process political information. We should therefore worry that the citizens most likely to participate in reform efforts are unrepresentative of the broader population. This is because the citizens most capable of processing new political information (and thus most likely to gain stronger attitudes from complex debates) are likely to be issue activists, ideologues, and extreme partisans. To the extent that their views differ from the views of the wider public (Fiorina, Abrams & Pope 2006), the downstream effect of complex debates is to strengthen the voices of the most extreme citizens in the policy reform process.

REFERENCES

Barker, David C & Susan B Hansen. 2005. "All things considered: Systematic cognitive processing and electoral decision-making." *Journal of Politics* 67(2):319–344.

Carmines, Edward G & James A Stimson. 1980. "The two faces of issue voting." *American Political Science Review* 74(1):78–91.

Chong, Dennis & James N Druckman. 2007. "Framing public opinion in competitive democracies." *American Political Science Review* 101(04):637–655.

Egan, Patrick J. 2013. *Partisan priorities: How issue ownership drives and distorts American politics*. Cambridge University Press.

Fiorina, Morris P, Samuel J Abrams & Jeremy Pope. 2006. *Culture war?: The myth of a polarized America*. Longman Publishing Group.

Gerber, Alan S, Gregory A Huber, David Doherty & Conor M Dowling. 2011. "Citizens' policy confidence and electoral punishment: A neglected dimension of electoral accountability." *The Journal of Politics* 73(4):1206–1224.

Jones, Bryan D, Jeffery Talbert & Matthew Potoski. 2003. "Uncertainty and Political Debate: How the Dimensionality of Political Issues Gets Reduced in the Legislative Process." *Uncertainty in American Politics* pp. 118–138.

Kruger, Justin & David Dunning. 1999. "Unskilled and unaware of it: how difficulties in recognizing one's own incompetence lead to inflated self-assessments." *Journal of personality and social psychology* 77(6):1121–1134.

Levendusky, Matthew S. 2013. "Why do partisan media polarize viewers?" *American Journal of Political Science* 57(3):611–623.

McGraw, Kathleen M, Edward Hasecke & Kimberly Conger. 2003. "Ambivalence, uncertainty, and processes of candidate evaluation." *Political Psychology* 24(3):421–448.

Peterson, David AM. 2005. "Heterogeneity and certainty in candidate evaluations." *Political Behavior* 27(1):1–24.

Petrocelli, John V, Zakary L Tormala & Derek D Rucker. 2007. "Unpacking attitude certainty: attitude clarity and attitude correctness." *Journal of personality and social psychology* 92(1):30.

Petty, Richard E & Jon A Krosnick. 2014. *Attitude Strength: Antecedents and Consequences*. Psychology Press.

Sniderman, Paul M & Sean M Theriault. 2004. "The structure of political argument and the logic of issue framing." *Studies in public opinion: Attitudes, nonattitudes, measurement error, and change* pp. 133–65.

Taber, Charles S & Milton Lodge. 2006. "Motivated skepticism in the evaluation of political beliefs." *American Journal of Political Science* 50(3):755–769.

Tormala, Zakary L & Derek D Rucker. 2007. "Attitude certainty: A review of past findings and emerging perspectives." *Social and Personality Psychology Compass* 1(1):469–492.

Tormala, Zakary L & Richard E Petty. 2004. "Resistance to persuasion and attitude certainty: The moderating role of elaboration." *Personality and Social Psychology Bulletin* 30(11):1446–1457.

Tyner, Andrew. 2016. "Creating complexity: Opinion leaders' efforts to activate status quo bias." Presented at the Midwest Political Science Association meeting in Chicago, IL.

Visser, Penny S, Jon A Krosnick & Joseph P Simmons. 2003. "Distinguishing the cognitive and behavioral consequences of attitude importance and certainty: A new approach to testing the common-factor hypothesis." *Journal of Experimental Social Psychology* 39(2):118–141.

Zaller, John & Stanley Feldman. 1992. "A simple theory of the survey response: Answering questions versus revealing preferences." *American Journal of Political Science* 36(3):579–616.

APPENDIX 1A: TEXT REPRESENTATION SELECTION

In the absence of best practices for selecting the number of topics, a data-driven approach was adopted by estimating the model repeatedly, varying the number of topics between 10 and 80 to determine which version provides the most coherent and sensible topics. Further, a variety of representations of each document were tested by varying which terms were included when estimating the topic model. This was accomplished by reducing the included terms according to their average term frequency-inverse document frequency (tf-idf) scores. Tf-idf scores weight each term in each document by its frequency in the document and apply a penalty for terms that appear frequently in other documents in the same collection. The highest scores are thus applied to a term in a document that appears repeatedly in that document but only appears in five other documents (reflecting the rare term threshold referenced in the main text). High scores for a term in a document represent language that's highly characteristic of that particular document. By extension, taking the average tf-idf score for each term across all documents should distinguish the terms that are of greater substantive interest from the rest. Tf-idf scores were incorporated in the text representation in three ways: by only including terms that have an average tf-idf score above the average tf-idf score of the full collection; by only including terms that have an average tf-idf score above the 90th percentile; and by only including terms that have an average tf-idf score above the 95th percentile.

Further, the baseline unigram model, where each term is treated as a separate feature of the text, is a bag-of-words approach to topic modeling in which the order of the terms and where they appear in the document are ignored. Because term order potentially has substantive meaning in this debate – in phrases like "preexisting condition" and "status quo," for example – topic models were also estimated with the text represented with both unigrams and bigrams.

To select the best fitting model among the various combinations of topic numbers and text representations, I read through the FREX vocabulary (defined in the main text) for each

of the topics produced by the model, attempting to provide a substantive interpretation to each topic and a judgment about the topic's quality. Each estimated topic was assigned a score of poor, medium, or high based on how clear the identity of a topic is from its FREX vocabulary. Better-fitting topic models have a relatively higher proportion of topics rated as high or medium.

This procedure was performed after estimating 40-topic models for each of the seven text representations – full unigram, unigram above the mean tf-idf, unigram above the 90th percentile tf-idf score, unigram above the 95th percentile tf-idf score, unigram and bigram above the mean tf-idf, unigram and bigram above the 90th percentile tf-idf score, and unigram and bigram above the 95th percentile tf-idf score. The results of this exercise indicated that the two most promising text representations were the full unigram model and unigrams above the 90th percentile tf-idf score. Because the full unigram text representation involves the least amount of data manipulation, I report results from this representation exclusively in the main text and appendices of the paper. Further, 40 topics produced the highest proportion of sensible topics, and thus the main text relies exclusively on that format.

APPENDIX 1B: ADDITIONAL TABLES and FIGURES

Table A1.3: Complexity and Proportion of Top Topic by Party and Time (Figures 1.2 and 1.4)

	(1) Complexity	(2) Top Proportion
Democratic Party	-0.16** (0.04)	0.14** (0.03)
Days Since February 3, 2009	-0.08* (0.04)	0.07* (0.04)
Democratic Party × Days	0.09 (0.06)	-0.08 (0.05)
Constant	0.52** (0.03)	0.58** (0.02)
Adjusted R^2	0.05	0.04
Observations	1,120	1,120

Standard errors in parentheses

$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$ (two-tailed)

The dependent variable on the left is the Shannon's diversity index score of each speech calculated from the 12 overarching topics referenced in Table 1.2. On the right, the dependent variable is the proportion of each speech devoted to its top topic. All variables are scaled 0-1. Both models are estimated with OLS.

Table A1.4: Effect of Party on Attention to Topics (Figure 1.5)

	(1) Problems	(2) Goals	(3) Process	(4) Big Government	(5) Cuts	(6) Business	(7) Partisanship
Democratic Party	0.36** (0.02)	0.11** (0.01)	-0.13** (0.01)	-0.12** (0.01)	-0.18** (0.01)	0.01 (0.01)	-0.07** (0.01)
Constant	0.08** (0.01)	0.13** (0.01)	0.15** (0.01)	0.15** (0.01)	0.19** (0.01)	0.03** (0.00)	0.14** (0.01)
Adjusted R^2	0.33	0.05	0.10	0.09	0.16	0.00	0.03
Observations	1,120	1,120	1,120	1,120	1,120	1,120	1,120

Standard errors in parentheses

$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$ (two-tailed)

Each dependent variable represents a different clustered topic and is scaled from 0 to 1 based on the proportion of a speech devoted to that topic. The linear regression model is estimated with OLS.

Table A1.5: Effect of Party on Complexity Across Topic Models (Unclustered)

	(1) 10 Topics	(2) 15 Topics	(3) 20 Topics	(4) 40 Topics	(5) 60 Topics	(6) 80 Topics
Democratic Party	0.03* (0.01)	0.00 (0.01)	-0.01 (0.01)	-0.05** (0.01)	-0.05** (0.01)	-0.02+ (0.01)
Constant	0.58** (0.01)	0.56** (0.01)	0.55** (0.01)	0.47** (0.01)	0.42** (0.01)	0.34** (0.01)
Adjusted R^2	0.00	0.00	0.00	0.01	0.01	0.00
Observations	1,120	1,120	1,120	1,120	1,120	1,120

Standard errors in parentheses

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$ (two-tailed)

The dependent variables are the Shannon's diversity index scores calculated from the estimated topics of six different topic models. The index scores are scaled 0-1, and the models are estimated with OLS.

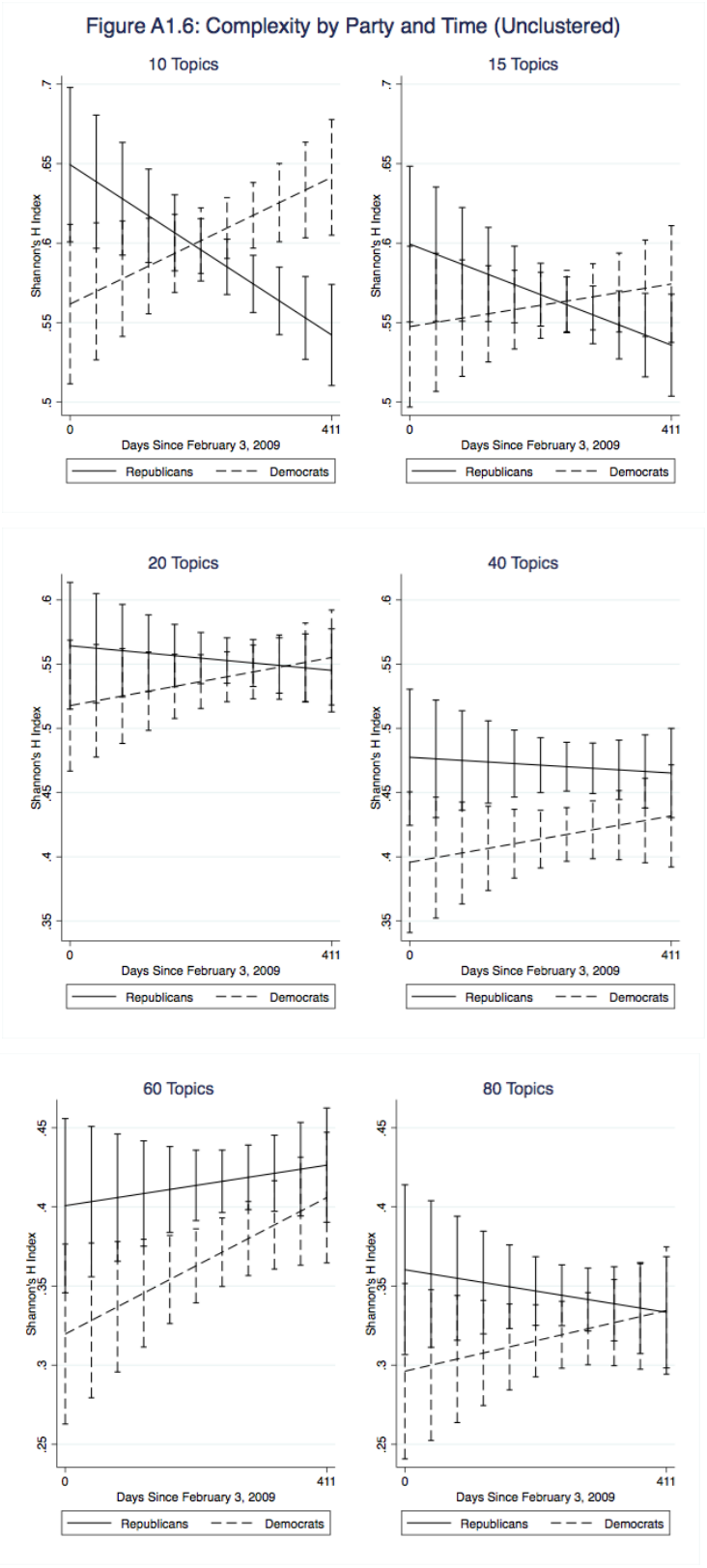
Table A1.6: Effect of Party and Time on Complexity Across Topic Models (Unclustered)

	(1) 10 Topics	(2) 15 Topics	(3) 20 Topics	(4) 40 Topics	(5) 60 Topics	(6) 80 Topics
Democratic Party	-0.09* (0.04)	-0.05 (0.04)	-0.05 (0.04)	-0.08* (0.04)	-0.08* (0.04)	-0.06 (0.04)
Days Since February 3, 2009	-0.11** (0.04)	-0.06+ (0.04)	-0.02 (0.04)	-0.01 (0.04)	0.03 (0.04)	-0.03 (0.04)
Democratic Party × Days	0.19** (0.05)	0.09+ (0.05)	0.06 (0.05)	0.05 (0.06)	0.06 (0.06)	0.07 (0.06)
Constant	0.65** (0.02)	0.60** (0.02)	0.56** (0.03)	0.48** (0.03)	0.40** (0.03)	0.36** (0.03)
Adjusted R^2	0.01	0.00	0.00	0.01	0.01	0.00
Observations	1,120	1,120	1,120	1,120	1,120	1,120

Standard errors in parentheses

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$ (two-tailed)

The dependent variables are the Shannon's diversity index scores calculated from the estimated topics of six different topic models. The index scores are scaled 0-1, and the models are estimated with OLS.



These figures are derived from the linear regression models in Table 1.6 above. The y-axis is predicted Shannon's H Index scores, where higher values indicate greater complexity.

APPENDIX 2A: ADDITIONAL TABLES AND FIGURES

Table A2.7: Ideology is more predictive of vote choice on ideological measures when goals are clear (corresponding to Figure 2.1).

	(1) Liberal Reforms	(2) Conservative Reforms
Goal Clarity	2.34** (0.26)	-1.90** (0.39)
Ideology	-0.61 (0.42)	0.51 (0.44)
Goal Clarity × Ideology	-1.89** (0.45)	2.23** (0.55)
Hard Issue	-0.76** (0.07)	-0.96** (0.16)
Readability	-2.07** (0.22)	3.18** (0.69)
Word Count	-0.24 (0.21)	6.67** (0.61)
Sophistication	-0.88** (0.22)	-0.18 (0.35)
Level of Information	0.13 (0.10)	0.31+ (0.17)
Constant	0.35 (0.31)	-3.19** (0.61)
State Dummy Variables	Yes	Yes
Observations	7,847	5,092

Standard errors in parentheses

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$ (two-tailed)

Logit with weights and random effects for individual respondents. The dependent variable is coded 1 if the respondent voted in favor of the measure and 0 if she voted against. Clarity of goals can take on values of 0, 0.5, or 1, where 1 indicates that the goals of the ballot measure are very clear. On the left are measures that move policy in a liberal direction; on the right, measures move policy in a conservative direction. Only respondents who voted in the 2012 general election and voted on the measure are included in these models.

Table A2.8: Respondents are more likely to vote on all measures and support non-ideological measures as their goals become clearer. (Student-coded goal clarity scores.)

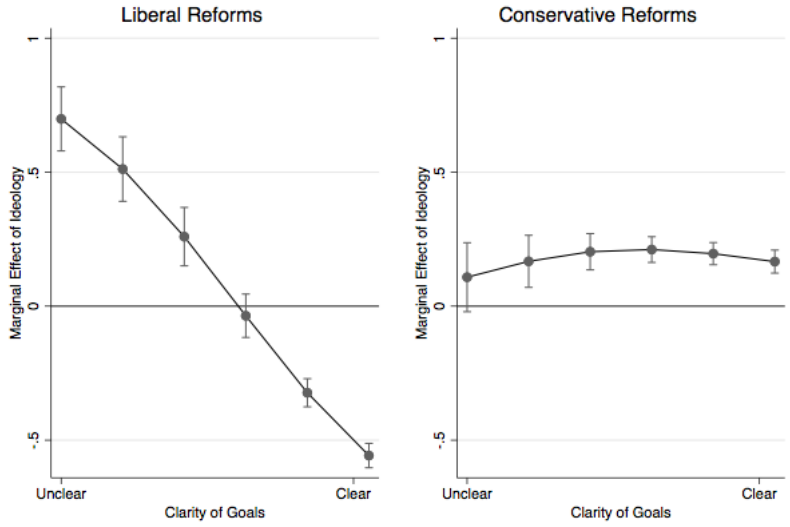
	(1) Vote	(2) Support
Goal Clarity	0.86** (0.13)	1.07** (0.08)
Hard Issue	-0.33** (0.10)	0.28** (0.09)
Liberal Reforms	0.48** (0.10)	
Conservative Reforms	0.11 (0.09)	
Ideology	0.97** (0.34)	-0.38** (0.14)
Readability	-0.65* (0.33)	0.27 (0.25)
Word Count	0.85** (0.23)	-1.71** (0.17)
Sophistication	5.44** (0.55)	-0.42+ (0.24)
Level of Information	3.62** (0.18)	0.17 (0.11)
Constant	2.44** (0.64)	3.28** (0.36)
State Dummy Variables	Yes	Yes
Observations	25,666	10,377

Standard errors in parentheses

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$ (two-tailed)

Both models are logit with weights and random effects for individual respondents. The dependent variable in the first model is coded 1 if the respondent voted on the measure and 0 if she did not. The dependent variable in the second model is coded 1 if the respondent voted in favor of the measure and 0 if she voted against. All variables are coded 0-1. In the second model, only non-ideological ballot measures are included. Clarity of goals can take on values of 0, 0.5, or 1, where 1 indicates that the goals of the ballot measure are very clear. Only respondents who voted in the 2012 general election and voted on the measure are included in these models. These models rely on the student coding of goal clarity.

Figure A2.2: Replication of Figure 1 with Student-Coded Goal Clarity Scores



Each figure is derived from a logit model with weights and random effects for respondents where the dependent variable is 1 if the respondent voted in favor of a measure and 0 if she voted against. These figures rely on the student coding of the ballot measures' goal clarity. On the left, the measures push policy in a liberal direction. On the right, the measures push policy in a conservative direction. The marginal effect is the change in probability of voting in favor of the measure as a respondent moves from extremely liberal to extremely conservative, and as the clarity of the goals moves from unclear (0) to clear (1). The bars indicate 95% confidence intervals. A -.5 marginal effect indicates, for example, that the probability of voting in favor of reform has dropped by 50 percentage points. The same set of controls included in the models in Tables 2.2 and 2.3 are included here, with continuous variables set at their mean, the hard issue dummy set at 1 (indicating a hard issues), and the state set as California. Only respondents who voted in the 2012 general election *and* voted on the ballot measure are included in these models.

Table A2.9: Clear goals make ideological measures seem more ideologically extreme, partisan, and relevant to social groups. (Student-coded goal clarity scores.)

	(1) Extremity	(2) Partisanship	(3) Group Named	(4) Affective Group Reaction
Goal Clarity	0.59** (0.13)	1.02** (0.12)	0.60** (0.11)	0.26+ (0.15)
Hard Issue	-0.02 (0.07)	-0.44** (0.06)	-0.37** (0.06)	-0.58** (0.08)
Conservative Reform	-0.53** (0.07)	0.37** (0.07)	-0.76** (0.07)	0.15 (0.09)
Ideology	0.47* (0.22)	0.30 (0.22)	-0.20 (0.21)	0.59** (0.20)
Readability	-0.15 (0.27)	-0.19 (0.24)	-1.28** (0.23)	-1.07** (0.28)
Word Count	0.08 (0.21)	-0.74** (0.20)	1.30** (0.20)	0.42+ (0.24)
Sophistication	4.50** (0.46)	3.45** (0.36)	4.62** (0.35)	1.38** (0.35)
Level of Information	1.52** (0.14)	0.70** (0.12)	0.80** (0.11)	0.70** (0.13)
Constant		-2.00** (0.35)	-1.46** (0.34)	-0.51 (0.35)
State Dummy Variables	Yes	Yes	Yes	Yes
Observations	14,068	14,258	14,258	8,816

Standard errors in parentheses

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$ (two-tailed)

The dependent variables across the four models are, respectively: perceived ideological extremity of the measure (coded 0-3); whether or not the respondent thought at least one party campaigned in favor or against the measure; whether or not a specific affected group could be named; and whether or not respondents had an emotional reaction to the group they named. All independent variables are coded 0-1. Clarity of goals can take on values of 0, 0.5, or 1, where 1 indicates that the goals of the ballot measure are very clear. These models rely on the student-coded goal clarity scores. Model 1 is ordered logit with clustered standard errors, weights, and random effects for individual respondents, and models 2-4 are logit with weights and random effects for individual respondents. These models include ballot measures that moved policy in either a liberal or conservative direction. Only respondents who voted in the 2012 general election are included.

Table A2.10: Models Corresponding to Figure A2.2 (Student-coded goal clarity scores.)

	(1) Liberal Reforms	(2) Conservative Reforms
Goal Clarity	5.18** (0.36)	2.51** (0.42)
Ideology	4.28** (0.49)	0.71 (0.43)
Goal Clarity × Ideology	-7.42** (0.54)	2.22** (0.55)
Hard Issue	-0.80** (0.08)	1.29** (0.19)
Readability	-2.86** (0.29)	10.04** (0.85)
Word Count	0.69** (0.21)	5.26** (0.63)
Sophistication	-0.83** (0.22)	-0.16 (0.37)
Level of Information	0.06 (0.10)	-0.00 (0.18)
Constant	-2.06** (0.36)	-10.01** (0.69)
State Dummy Variables	Yes	Yes
Observations	7,847	5,092

Standard errors in parentheses

$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$ (two-tailed)

Logit with weights and random effects for individual respondents. The dependent variable is coded 1 if the respondent voted in favor of the measure and 0 if she voted against. Clarity of goals can take on values of 0, 0.5, or 1, where 1 indicates that the goals of the ballot measure are very clear. These models are based on the student-coded goal clarity scores. On the left are measures that move policy in a liberal direction; on the right, measures move policy in a conservative direction. Only respondents who voted in the 2012 general election and voted on the measure are included in these models.

Table A2.11: Correlations of three perceived clarity measures (Study 2).

Perceived...	Goal Clarity	Problem Clarity	Policy Change Clarity
Goal Clarity	1.00		
Problem Clarity	0.66	1.00	
Policy Change Clarity	0.68	0.54	1.00

Table A2.12: VIF Scores and Tolerances of three perceived clarity measures (Study 2).

	VIF	Tolerance
Perceived Goal Clarity	2.38	0.42
Perceived Problem Clarity	1.80	0.55
Perceived Policy Change Clarity	1.91	0.52

VIF scores only include observations where political sophistication, attitude strength, and perceived complexity are non-missing in order to correspond to the two models in Table 2.6.

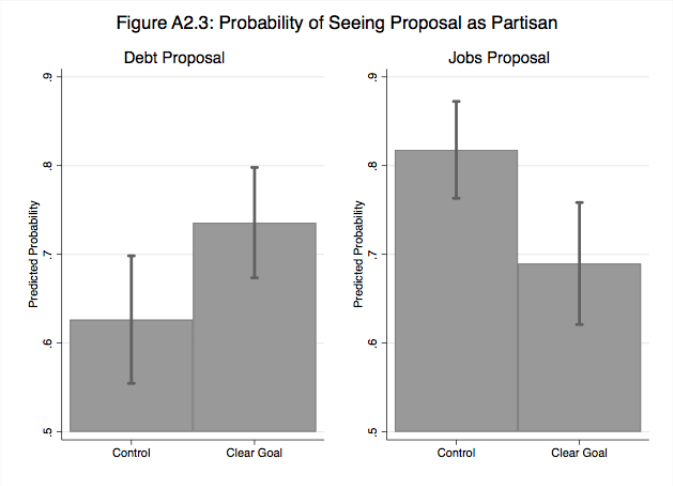
Table A2.13: Clear goals treatment condition increased perceived goal and problem clarity in both topics (Study 2).

	(1) Goal Clarity	(2) Goal Clarity	(3) Problem Clarity	(4) Problem Clarity
Treatment Condition	0.08* (0.03)	0.08* (0.02)	0.10* (0.03)	0.11* (0.03)
Constant	0.46* (0.02)	0.55* (0.02)	0.46* (0.02)	0.45* (0.02)
Adjusted R^2	0.02	0.03	0.03	0.04
Observations	366	367	366	365

Standard errors in parentheses

* $p < 0.05$ (two-tailed)

All models are OLS with dependent variables scaled 0-1. From left to right, the dependent variables are perceived goal clarity, perceived goal clarity, perceived problem clarity, and perceived problem clarity.



Figures correspond to the model in Table 2.11 below, which relies on Study 2. The y-axis is the predicted probability of seeing the ballot proposal as partisan. The treatment condition makes respondents more likely to see the debt limit proposal as partisan and less likely to see the job creation proposal as partisan.

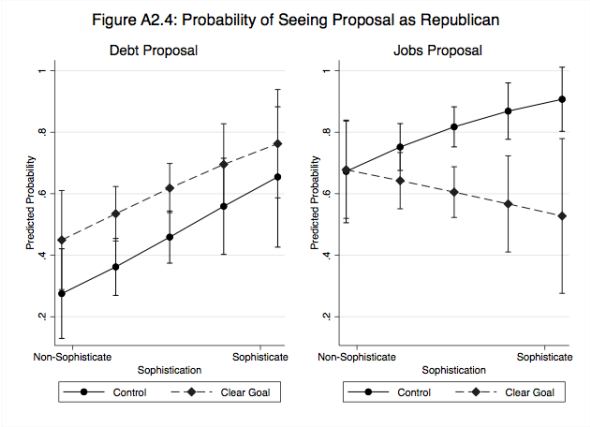
Table A2.14: Model corresponding to Figure A2.3.

	(1) Perceived Partisanship
Treatment Condition	0.55* (0.25)
Jobs Creation Topic Dummy	1.06* (0.27)
Treatment × Jobs Dummy	-1.31* (0.38)
Constant	0.57* (0.18)
Observations	733

Standard errors in parentheses

* $p < 0.05$ (two-tailed)

Logistic regression with random effects for respondents. The dependent variable is whether the respondent thought the ballot proposal was partisan. The jobs creation topic dummy is 1 when the proposal is about jobs creation and 0 when it is about the debt limit.



Figures correspond to the two models in Table A2.12, which relies on Study 2. The y-axis is the predicted probability of seeing the ballot proposal as endorsed by Republicans. The x-axis is level of political sophistication. The treatment condition makes respondents increasingly unlikely to think the jobs creation proposal is Republican as political sophistication increases.

Table A2.15: Models corresponding to Figure A2.4.

	(1) Republican Proposal	(2) Republican Proposal
Treatment Condition	0.77 (0.50)	0.03 (0.53)
Sophistication	1.61 (0.83)	1.56 (0.95)
Treatment × Sophistication	-0.24 (1.13)	-2.19 (1.26)
Constant	-0.97* (0.37)	0.72 (0.39)
Proposal	Debt Limit	Job Creation
Observations	360	359

Standard errors in parentheses
* $p < 0.05$ (two-tailed)

Both models are logistic regression. The dependent variable is whether the respondent thought the Republican Party endorsed the ballot proposal. The treatment condition dummy variable and sophistication are both coded 0-1.

APPENDIX 2B: LIST OF PROPOSALS (STUDY 2)

Respondents were randomly shown two proposals from the list of 14 below. The first seven (Proposals 3-9) have relatively clear goals, while the rest (Proposals 10-16) have relatively unclear goals.

1. Proposal 3 authorizes a temporary one-half cent sales and use tax to fund state highways, bridges, county and city roads, and other surface transportation with state revenues securing four-lane highway construction and improvement bonds.

2. Proposal 4 would allow for property tax discounts for disabled veterans. It explicitly extends the rights to ad valorem tax discounts, made available in 2014 to all veterans who were residents of the state prior to their service, to all combat-disabled veterans currently living in the state whether they were residents prior to their service or not.

3. Proposal 5, the Renewable Energy Amendment, would require utilities to obtain at least 25% of their electricity from clean renewable energy sources, which are wind, solar, biomass, and hydropower, by 2025.

4. Proposal 6 would make it a class C felony to maliciously and intentionally harm a living dog, cat, or horse. It would not apply to production agriculture, or to lawful activities of hunters and trappers, licensed veterinarians, scientific researchers, or to individuals engaged in lawful defense of life or property.

5. Proposal 7 establishes the Large Project Development Fund. Beginning January 1, 2019, 22% of contractors' excise tax revenues would be transferred from the state general fund to the Large Project Development Fund. The State Board of Economic Development would use Large Project Development Fund monies to provide grants for the construction of large economic development projects within the state.

6. Proposal 8 prohibits public dollars from funding abortions. It would prohibit the State Constitution from being interpreted to create broader rights than those contained in the US Constitution. It exempts federal law requirements, physician-certified physical danger to the mother, and instances of rape or incest.

7. Proposal 9 would establish a teacher scholarship program; create a program for math and science teacher bonuses; create a program for teacher merit bonuses; mandate a uniform teacher and principal evaluation system; and eliminate state requirements for teacher tenure.

8. Proposal 10 would set the amount exempt from annual property taxes on business equipment and machinery purchased after 2016 to an amount equal to the combined earnings of 50 workers.

9. Proposal 11 removes restrictions on the state legislature's authority to enact laws regarding corporations. It allows the state legislature to: (1) authorize alternative methods of voting in elections for corporate directors; (2) expand the types of contributions

a corporation may receive for the issuance of stock or bonds; and (3) establish procedures governing the increase of corporate stock or debt.

10. Proposal 12 changes commercial non-tribal fishing in the state's inland waters by banning gillnets and adopting other regulatory changes; recreational fishers are ensured their share.

11. Proposal 13 increases the term length and raises the retirement age for justices and judges; modifies membership of court appointment commissions; requires publishing court decisions online and transmitting a copy of judicial performance reviews of each judge up for retention to the state legislature.

12. Proposal 14 sets a limit on the annual percentage increase in property values used to determine property taxes to no more than 5% above the previous year, and establishes a single limited property value as the basis for determining all property taxes on real property, beginning in 2020.

13. Proposal 15 requires manufacturers to label food sold to consumers that is made from plants or animals with genetic material changed in specific ways. It prohibits marketing such food, or other processed food, as natural and provides exemptions.

14. Proposal 16 would prohibit increases in the assessed value of homestead property if the fair market value of the property decreases; reduces the limitation on annual assessment increases to non-homestead property; and provides an additional homestead exemption.

APPENDIX 3A: ISSUE ARGUMENTS

Minimum Wage Arguments

Supporters

- Poverty levels are at an all-time high in the state.
- Well paid employees spend money on local businesses.
- Low-income families would benefit enormously from this proposal.
- Recent polling indicates that a majority of people in this state support the bill.
- People deserve to be paid fairly for their work. No one who works full time should be in poverty.
- Previous increases in the minimum wage have produced higher average incomes without an increase in unemployment.
- High poverty rates burden the state's social welfare services.
- The big corporations in the state are the ones opposing this bill.

Opponents

- This proposal is too costly to businesses.
- The biggest cause of poverty in the state is the skyrocketing cost of housing. Raising the minimum wage won't address that.
- People are trying to ram this through without any opportunity for debate.
- Labor unions are the bill's biggest supporters because they can charge their members increased dues.
- This is just another example of government overreach into private enterprise.
- This kind of decision should be made at the local level, since city councils can set the right minimum wage better than a state government can.
- Raising the minimum wage by nearly $5 is too radical. We should try raising it by a smaller amount to see what the effects will be.
- This bill is a distraction from bigger issues, like underfunded schools.

Cell Phone Data Arguments

Supporters

- The threat of domestic terrorism is rising.
- Other countries are taking similar steps to combat domestic terrorism. We need to keep pace with our allies.
- The public expects us to take action to keep them safe, instead of just talking and debating about it forever.
- We're only talking about minor increases in data surveillance. This is what cell phone companies already have access to.
- Everyone has the right to feel safe and secure in their own country.
- The executive branch is constitutionally obligated to protect us. We need to empower it to do so.
- There will be limited access to this data and strict oversight over its usage.
- Victims of domestic terrorism shouldn't die in vain.

Opponents

- Terrorists rarely use cell phones when planning their attacks, so giving the government more access to cell phone data won't make us safer.
- The bill creates a slippery slope where the federal government can access any data it wants for any purpose.
- The other side wrote the entire bill on their own, without giving us a chance to provide input.
- It's inevitable that this data access will be abused and used for other purposes.
- The number of domestic terrorist acts hasn't actually changed over the past decade. We shouldn't make major changes like this when there isn't a new problem.
- This kind of invasion of privacy is unconstitutional.
- Recent protests in Washington show the public's opposition to this bill.
- Ethnic minorities will be unduly targeted under this proposal.

Charter School Arguments

Supporters

- Traditional public schools are failing to prepare students for the workplace and higher education.
- Charter school teachers have the flexibility to tailor the curriculum to the individual needs of their students.
- Parents deserve choices over where they send their children to school.
- It'll be easier to fix this problem now than kicking it further down the road until it gets worse.
- The teachers' unions oppose this bill because they will lose power.
- Expanding the number of charter schools is an excellent recruiting tool for the best new teachers to come work in the state.
- This bill builds on the demonstrated success of the state's existing charter schools.
- More charter schools means less bureaucratic control over what teachers can do in their classrooms.

Opponents

- This proposal would take money that should be devoted to improving traditional public schools for all children.
- Most North Carolinians oppose passage of this bill.
- It's a handful of well connected parents who are pushing this bill because it will benefit their families the most.
- It's hasty to double the number of charter schools when researchers are still unsure about their effectiveness.
- Bringing together all different kinds of students into the same classroom is a core purpose of public education. This is impossible when parents pick and choose where their children go.
- The massive investment this would require is unwise in uncertain economic times like these.
- Instability in students' home lives is the real cause of poor student performance. Charter schools will do nothing to solve that.
- Separating students into charter schools and traditional public schools will only widen existing educational disparities.

Wind Energy Arguments

Supporters

- The U.S. is too reliant on non-renewable fossil fuels.
- Using more wind power will help address climate change.
- These funds for research and development will spur additional discoveries in science and technology, helping keep America globally competitive.
- The public is demanding we take action to address the energy crisis.
- The oil companies have damaged the environment for too long. We must not continue to reward them for their bad behavior.
- We need to try all approaches to address the many environmental crises we face. We cannot afford to leave any idea on the table.
- Future generations will thank us for making a responsible investment of our resources today.
- It has long been federal policy to steer money toward research projects aimed at the public's benefit.

Opponents

- This bill was written and promoted by environmental lobbyists.
- Most energy experts oppose passage of this bill.
- Even when fully developed, wind power wouldn't make a dent in the United States' overall energy usage. It's at best a minor fix.
- Wind power is unproven on a large scale.
- Energy production is best handled by the private marketplace. It's not the federal government's place to push these kinds of innovations.
- Singling out wind power companies for special treatment harms workers who are employed in other energy fields.
- We should be investing our resources in more pressing threats, like foreign terrorism.
- It's inevitable that these funds will only be granted to the well-connected firms who can hire special lobbyists.

APPENDIX 3B: ADDITIONAL TABLES

Table A3.7: The effect of attitude strength on action is robust across four of the five action items.

	(1) Donate	(2) Volunteer	(3) Petition	(4) Share Opinion	(5) Change Vote
Attitude Strength	0.42*** (0.03)	0.48*** (0.04)	0.56*** (0.05)	0.67*** (0.05)	0.06 (0.06)
Political Sophistication	0.01 (0.04)	0.06 (0.04)	0.24*** (0.06)	0.17* (0.07)	0.03 (0.07)
Folded Party ID	0.07* (0.03)	0.09** (0.03)	0.04 (0.04)	0.00 (0.05)	0.04 (0.04)
Constant	-0.00 (0.03)	-0.02 (0.03)	0.06 (0.05)	0.14** (0.04)	0.42*** (0.04)
Within-R^2	0.20	0.21	0.22	0.31	0.00
Between-R^2	0.07	0.12	0.20	0.29	0.02
Overall-R^2	0.12	0.15	0.20	0.30	0.01
Study	Both	Both	Study 1	Study 2	Study 2
Observations	1,248	1,246	570	677	678

Standard errors in parentheses

$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

All models are OLS with random effects for individual respondents and standard errors clustered by respondent. All independent and dependent variables are coded 0-1.

Table A3.8: Replication of Table 3.2 accounting for heteroskedasticity.

	(1) ARD
Complex Condition	-0.32*** (0.08)
Proportion Correctly Identified (PCI)	0.07 (0.07)
Complexity × PCI	0.24** (0.09)
Constant	0.28*** (0.07)
Variance	
Complex Condition	-0.89*** (0.08)
Constant	-2.18*** (0.05)
Observations	1,182

Standard errors in parentheses

$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-tailed)

Heteroskedastic linear regression model with standard errors clustered by respondent.

Table A3.9: Replication of Table 3.3 with studies separated out.

	(1) ARD	(2) ARD
Complex Condition	-0.31* (0.14)	-0.31** (0.10)
Proportion Correctly Identified (PCI)	0.07 (0.12)	0.08 (0.09)
Complexity × PCI	0.22 (0.15)	0.24* (0.11)
Constant	0.28* (0.12)	0.28** (0.09)
Study	Study 1	Study 2
Within-R^2	0.07	0.05
Between-R^2	0.04	0.02
Overall-R^2	0.05	0.04
Observations	472	710

Standard errors in parentheses

$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-tailed)

Both models are OLS with random effects for individual respondents and standard errors clustered by respondent. All independent and dependent variables are coded 0-1.

Table A3.10: Sophistication conditions the effect of PCI on ARD.

	(1) ARD	(2) ARD	(3) ARD
Sophistication	-0.41 (0.26)	-0.38 (0.52)	-0.72* (0.31)
Proportion Correctly Identified (PCI)	-0.09 (0.14)	-0.23 (0.35)	-0.16 (0.15)
Sophistication × PCI	0.57* (0.28)	0.61 (0.54)	0.90** (0.34)
Constant	0.32* (0.13)	0.38 (0.33)	0.40** (0.14)
Study	Pooled	Study 1	Study 2
Within-R^2	0.01	0.00	0.01
Between-R^2	0.05	0.06	0.09
Overall-R^2	0.03	0.03	0.03
Observations	1,162	468	694

Standard errors in parentheses

$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-tailed)

OLS with random effects for individual respondents and standard errors clustered by respondent. All independent and dependent variables are coded 0-1.